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SOCIOLOGICAL PAPERS

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SOCIOLOGICAL PAPERS

VOLUME III.

BY

G. ARCHDALL REID, W. McDOUGALL, J. L. TAYLER,
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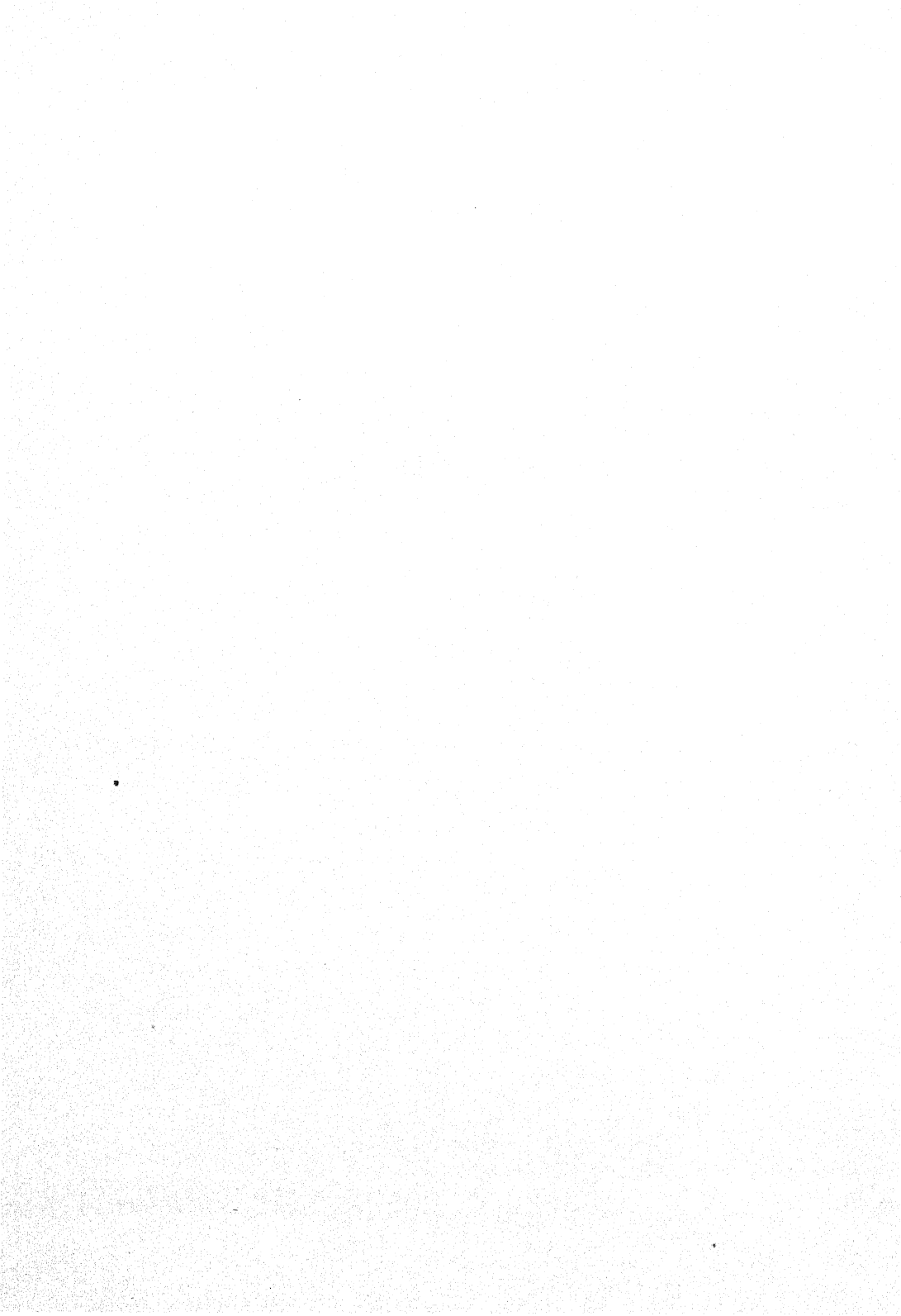
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PREFACE

The papers included in the present volume were read at meetings of the Sociological Society held during its third session (October, 1905 - April, 1906). The thanks of the Society are due to those who favoured it by reading papers and also to those who contributed to the discussions by speaking at the meetings or by sending written expressions of opinion. Despite criticism of the miscellaneous character of the previous volumes, it has seemed best to the Committee* to maintain a wide scope in the variety of papers presented. By assembling contributions from many representative points of view, it is believed that a certain consensus will appear which will assist in that formulation of principles which Sociology admittedly requires.

The eugenic problem seems to present two aspects: First the practical one of increasing public interest in, and knowledge of human breeding, the application of principles already ascertained by Mr. Galton. This advocacy, which has been a part of the Society's work from its inception, is continued by the paper of Mr. McDougall. But attempts

* The following are the members of the Editorial Committee:—Mr. L. T. HOBHOUSE (Chairman), Professor GEDDES, Mr. BENJAMIN KIDD, Mr. J. A. HOBSON, Mr. V. V. BRANFORD, Dr. WESTERMARCK, Sir JOHN MACDONNELL, and Dr. SLAUGHTER.

to realise eugenic ideals require supplementation on the more strictly scientific side by accurate and detailed studies of how biological factors operate in the case of human beings. Dr. ARCHDALL REID's contribution is an endeavour to elucidate the questions of human heredity and variability. Dr. TAYLER's paper is also a study in biological sociology, and advances the thesis that the fundamental social formations are determined by the native characteristics of individuals.

Of even greater interest to the general students of sociology is Professor THOMSON's paper on "The Sociological Appeal to Biology." The conspectus therein furnished of borderland problems and the relations of the two sciences will go far toward clearing up the confusion that characterises this region, and will commend the paper as being one of the first competent endeavours to give orientation to previously more isolated studies.

It is increasingly evident that the sociologist will find in the city not only scope for practical endeavour in the betterment of conditions, but also his chief body of facts for theoretical interpretation. The usual conception of the city as a mere aggregate of human beings is deepening into a conception of growth dependent upon occupational adjustment, the grouping of institutions and other formations which constitute necessary conditions for the evolution of culture. The present volume includes the third of Professor GEDDES' series of papers on "Civics," which attempts to afford insight into the life processes of the city.

A division of sociology not hitherto represented in the Society's publications, that of religion, is opened by the paper of Mr. A. E. CRAWLEY. So important a section of sociological subject-matter could not be long neglected, and the discussion of it, being thus initiated by the focalisation

of a large body of opinion will, it is hoped, be the first of an important series of contributions.

It is recognised that the value of sociology will be ultimately determined by its capacity to interpret concrete social phenomena. A step is made toward the application of this test by the papers of Professor WENLEY and Mr. DE WESSELITSKY, and also by the conference on the "Unemployed" opened by Mr. BEVERIDGE, all of which deal with phases of contemporary social evolution.

The volume closes with two papers of a methodological character by Mrs. WEBB and Mr. WELLS. Both are free from the objection usually made to philosophical discussions of method, as they deal with matters of practical procedure in sociological investigation.

THE BIOLOGICAL FOUNDATIONS OF SOCIOLOGY

THE BIOLOGICAL FOUNDATIONS OF SOCIOLOGY.

BY G. ARCHDALL REID, M.B., F.R.S.E.

Read before a Meeting of the Sociological Society, at the School of Economics and Political Science (University of London), Clare Market, W.C., on October 24th, 1905, Sir JOHN A. COCKBURN in the Chair.

Probably no facts can be named of such importance as those of heredity. They lie at the basis of every science and every pursuit that deals with living beings. Hardly a social, moral or intellectual question can be thought of but we find that in its deeper aspects it is a problem of heredity. Heredity concerns not only the philosopher and the man of science, but also the parent, the teacher, the doctor, and even the statesman, the social reformer, and the historian. Properly handled, it is not a very abstruse subject. We are able to reach tolerably certain conclusions without travelling much beyond the range of knowledge common to most educated men. Nevertheless, though in all ages heredity has greatly interested all men, it has as yet few real students. The very interest it has excited has burdened it with superstitions, which in the past have been accepted as matters of common knowledge by men of science, who have added to the obscurity by elaborately seeking to explain the existence of the non-existent, the possibility of the impossible. Only very recently have some of these cobwebs been swept away.

The basis of all life is the cell. A cell is a minute mass of living protoplasm. Cells multiply by absorbing nutriment and dividing into two or more daughter-cells. In the lowest organisms the daughter-cells separate. Each individual, therefore, consists of a single cell. Higher organisms consist of many, it may be billions of adherent cells which work together for the common benefit. Among the cells of multicellular individuals are the germ-cells, to which is delegated the function of producing future individuals, future cell-communities. A germ-cell from one individual unites with a germ-cell from another. The compound cell thus formed, the fertilised ovum, multiplies by dividing and re-dividing many times the one cell into two cells, till a new individual, a new cell-colony—a man, for instance—arises. During multiplication, differentiation in form and function occurs among the cells, so that ultimately the individual is compounded of many different kinds of cells—muscle-cells, skin-cells, gland-cells, nerve-cells, and so forth. In the fertilised ovum is a dot, the nucleus. In the nucleus are ultra-microscopical dots and threads of a substance which, when multiplication occurs, displays remarkable movements, and is divided, seemingly with great precision, among the daughter-cells. In this way it passes, apparently with little change, from the germ-cells of the parent to those of the offspring. This substance has been identified, with a high degree of probability, as the germ-plasm, the bearer of heredity. We need not pin our faith to any theories as to the composition of the germ-plasm; but some such substance there must be—some substance which is the bearer of heredity. If this theory of the transmission of the germ-plasm from germ-cell to germ-cell be correct—and all the evidence indicates that it is correct—the child resembles his parent, not because his several parts are derived from similar parts of his parent—his head from his parent's head, his hand from his parent's hand, and so on—but because his germ-plasm is derived by direct descent from the parental germ-plasm, and consequently is very similar. The nature of the germ-plasm, therefore, determines the nature of the individual that

arises from the germ-cells. Thus from one variety of germ-plasm proceeds a man, and from another a rabbit. When a species undergoes evolution, the germ-plasm undergoes gradual change. When we improve our domestic plants and animals, the alteration is always in essence a germinal change. It is the germ-plasm that is the main fact to be grasped in a study of heredity.

All the characters, all the physical and mental parts, of a living being are either "inborn" or "acquired." An inborn character is one which comes to the individual "by nature," as part of his natural inheritance. An acquired character, on the other hand, is a modification of an inborn character caused, as a rule, by use, disuse, or injury. For example, a man's hand is inborn. It comes to him by nature; it arises because the germ-plasm in the germ-cell whence he sprang was so constituted that it caused that germ-cell, under fit conditions of shelter and nutrition, to multiply into a being having a man's hand. In brief, a man's hand is a germinal character; but the thickening of the skin in the palm of the hand which results from use, or a scar which results from injury, is not an inborn character, but an acquirement.

The principal mass of both inborn and acquired characters are ancient possessions of the race. Thus the hand and the thickened skin of the palm have been possessed by innumerable generations of men. But in some characters, offspring differ from their parents. When these new characters are inborn, they are technically termed variations. Thus, if the child of normal parents were blind "by nature," his peculiarity would be a variation; but if he became blind by injury, it would be an acquirement. The great importance of distinguishing between inborn and acquired characters lies in the fact that the former, including variations, tend to be inherited by offspring, whereas most students of heredity deny that the latter are ever inherited. It should be noted that some acquirements are of great magnitude. Thus, in the human being, the limbs develop beyond the infantile standard mainly under the influence of use; a paralysed infant limb

growing little, if at all. Almost all growth, therefore, that occurs in the limbs after birth is an acquirement.

Offspring tend to reproduce the main mass of the parental inborn characters, but always with variations—with innumerable inborn differences—which, as a rule, are minute as compared with the likenesses. Thus the child of a human being is always another human being, but “by nature” he is invariably somewhat different from his parent—a little taller or shorter, stronger or weaker, fairer or darker, and so forth. The chief problem of heredity, both theoretical and practical, is the question as to what causes offspring to differ from their parents in this inborn way. The importance of the problem at once becomes evident when we remember that all racial change, all evolution, depends on the variations of the individual members of the species; that is, on changes in the germ-plasm. A race evolves when it piles variations on variations during successive generations. It is in this way that species undergo change during a state of nature. It is in this way that we improve our domesticated plants and animals.

Several theories have been formulated to account for the occurrence of variation, but they may all be placed in one of two categories. On the one hand, it is supposed that the variations of offspring are caused by changes in the environments of the germ-cells whence the offspring arise; on the other hand, it is supposed that they are not so caused, but arise “spontaneously.” The first theory is very popular with medical men. Thus it is believed by them that, if a man leads a healthy, active life, his children will be innately stronger and more vigorous than they would otherwise have been; whereas, if he falls into ill-health through want, hardship, disease, dissipation, or some other cause, his germ-cells will be injured, and his offspring will tend to be innately inferior. A natural corollary to this hypothesis is a belief that a race will grow strong and vigorous if placed under conditions that will benefit its individuals; whereas it will degenerate if placed under opposite conditions. This belief, of course, is fundamentally opposed to the doctrine of natural

selection, which supposes that races evolve only when placed under influences which, because injurious to the individual, weed out the weak and the unfit, and leave the race to the strong and fit.

We can easily test these opposing doctrines by noting what has happened to various races of men. Negroes on the west coast of Africa, for example, have been exposed for hundreds, perhaps thousands, of generations to severe malaria. This disease is caused by a microbe which invades the body in great numbers and floods it with a virulent poison, in which, therefore, the germ-cells are literally soaked. Practically speaking, every negro suffers for a prolonged period from malaria, and many perish of it. If ever the environment of the germ-cell causes variations in offspring, it should do so in this instance. But what do we find? Neither the negroes nor any other races exposed to malaria have grown degenerate. The negroes, for example, are a tall and robust race. On the contrary, every race that has been exposed to the disease is resistant to it precisely in proportion to the duration and severity of its past sufferings; and this, apparently, is the sole effect that malaria has had on any race. The same is true of every other disease and every other adverse condition to which any race is subjected. Thus Englishmen, who have suffered much from consumption, are more resistant to it than negroes, who have suffered less, and much more resistant than Polynesians, who have had no previous experience of the disease and are exterminated when it is introduced to their islands. Extreme cold has not rendered degenerate the Eskimos, nor extreme heat the Arabs; they have merely been rendered, by the survival of the fit, resistant to heat or cold respectively. Many races have been afflicted by alcohol for thousands of years. Some men are naturally more susceptible to the charm of alcohol than others. These, because they are more tempted, drink, on the whole, to greater excess; and thus are weeded out to a greater extent. As a consequence, every race is temperate precisely in proportion to its past experience of alcohol. Thus west-African savages, who have long possessed unlimited supplies of palm toddy, the Jews, and the

inhabitants of the vine countries of the south of Europe are more temperate than north-Europeans, and infinitely more temperate than most savages. What is true of alcohol is true also of opium. Thus the natives of India, who have long used the drug, are very temperate; the Chinese, who have used it for two centuries, are less temperate; whereas Burmans, Australians, and Polynesians, who have only lately made its acquaintance, are extremely intemperate. City life, particularly slum life, is injurious to the individual. Each succeeding generation of slum-dwellers presents a very debilitated and puny appearance, and the mortality is immense. But races that have been most subjected to the influences of city life—the Chinese, for example—are in no way degenerate. The Chinese are a particularly fine race of people.

On the other hand, as is well known, if a race is placed under conditions highly beneficial to its individuals, so that the elimination of the unfit is reduced to a minimum, it tends to degenerate. Thus we cannot improve or even preserve our breed of racehorses merely by supplying good food and the other conditions necessary for a healthy existence. We must weed out the unfit, and so breed the race with care.

Were the prevailing medical doctrine, that variations are normally caused by the direct action of the environment on the germ-plasm, true, all life would be impossible on earth; for all living species are subjected to deteriorating influences, such as cold, want, and disease. Unless the germ-plasm were resistant to the environment, every species would drift steadily and helplessly to destruction. Natural selection could not preserve it. There could be no selection when all variations were unfavourable. There could be no improvement in a race when in each generation all its individuals were inferior to their predecessors. Medical men found their belief chiefly on certain statistics, compiled mainly by gentlemen in charge of lunatic asylums, which demonstrate that a large number of feeble-minded people have parents or grandparents diseased or intemperate. But these statistics fail to take into account the proportion of cases which have inherited parental defects, or which have varied spontaneously from the parents. They fail also to demonstrate

that asylum patients have parents diseased or intemperate in a greater proportion of cases than people of the same social stratum outside the walls. I hope it will be understood that, in controverting the prevailing medical doctrine, I do not mean to imply that variations in offspring are never caused by parental disease or intemperance. I mean to imply merely that instances of variations so caused must be very rare. Otherwise the race would become extinct. We know that the offspring of diseased and intemperate people are often perfectly normal and robust. That implies that their germ-plasm was insusceptible to the action of toxins and alcohol. This insusceptible type survives. The susceptible types are weeded out. A high degree of insusceptibility is thus established as a necessary condition of individual and racial survival, and in the process of ages becomes almost absolute. Doubtless the germ-plasm of every species is most insusceptible to the influences to which it is normally exposed. Under exceptional circumstances, as when exposed to novel and powerful influences, the whole race is sometimes rendered really degenerate, as is proved by the deterioration of European dogs in India and horses in the Falkland Islands. But the mere fact of deterioration under novel conditions proves clearly how necessary for the preservation of the race is a high degree of insusceptibility to the influences to which the race is normally exposed. In view of the indisputable fact that races undergo evolution, not degeneration, when exposed to disease and alcohol, the medical doctrine of heredity amounts in effect to this, that if only a race goes downhill long enough, it will ultimately arrive at the top. It is literally inconceivable that evolution can have resulted from continuous degeneration.

We must conclude, therefore, that variations are very rarely due to the direct action of the environment on the germ-plasm. This conclusion is confirmed by another set of facts, which serve also to indicate the true source of variations—the true reason why offspring differ innately from their parents. The members of a litter of dogs, cats, or pigs always vary, not only from their parents, but among themselves, and

may vary very greatly. Thus one puppy may be large, strong, vigorous, dark, and rough-haired; while others may exhibit different qualities in all sorts of combinations. One puppy may resemble the father, another the mother, and a third some distant ancestor. Obviously, these extreme variations cannot be due to the action of environment; for all the germ-cells and all the puppies before birth were placed under conditions that were practically identical. We have no choice, therefore, but to believe that the variations of the litter are spontaneous; in other words, that their source lies in the nature of the germ-plasm, not in the action of the environment. We know that a germ-cell, on being fertilised, spontaneously produces many different kinds of body-cells, such as skin- and muscle-cells. In just the same way it produces spontaneously germ-cells which differ among themselves. These variations are absolutely necessary to the persistence of the species. Otherwise natural selection would have no material to work on. Children would be exact copies of the parent, and the race could not adapt itself to changes in the environment. Thus it is only because children vary spontaneously from their parents in all directions, like bullet marks round a bull's-eye, that natural selection has been able to render the races of mankind resistant to all the diseases by which they are assailed.

We reach thus two fundamental biological laws. The first law is that the germ-plasm is very highly indifferent to the action of the environment, and therefore that children are seldom affected by the influences to which their parents are exposed. The second law is that germ-cells, and therefore the individuals that arise from them, vary spontaneously among themselves, just as the body-cells vary, and for the same reason. It follows that we cannot improve races of plants and animals by improving the conditions under which they exist. Such a course benefits the individual, but results in racial degeneration. The race can be improved only by restricting parentage to the finest individuals. All the practice, if not the theory, of breeders confirms us in this belief.

It will be well worth our while to devote a little space to a consideration of some of the effects resulting from man's evolution against disease. Probably this evolution is the only form of evolution which civilised races are now undergoing. Such is our care for the weak in body and mind that there is nothing to indicate, for example, that big and strong and active men, or clever men, have, on the average, more children than smaller or duller men. Nearly all our deaths are due to disease or old age. The few that are otherwise caused are not selective in the sense that they eliminate particular types of individual. Thus death by drowning does not select particular types. It falls on the fit and unfit in a fashion that is quite haphazard.

Zymotic diseases—that is, diseases due to living microbes—appear to have originated among the ancient and crowded populations of the Old World. Our oldest histories, even our oldest myths, tell of plague and pestilence. But we have no indication, with the exception of malaria, that any such diseases existed in the Western Hemisphere before the arrival of Europeans. On the contrary, while we never hear of European adventurers in the Western Hemisphere falling ill of any new disease except malaria, we have quite definite accounts of the first introduction of this or that Old World malady to this and that region of the western world. The microbes of certain diseases, such as malaria and the sleeping-sickness, are transferred from one human being to another by winged insects, and may therefore prevail in regions where the population is scanty. But most other zymotic diseases pass directly from man to man, and therefore prevail most where the population is densest. Thus the mortality from consumption, and therefore the stringency of selection by consumption, is much greater in the slums of great cities than in the open country. During uncounted centuries, therefore, with the advance of civilisation and the increase of population, man in the Old World underwent evolution against many forms of disease. By means of this evolution he achieved the power of dwelling in towns and cities, of living a civilised existence in spite of the prevalence of

disease under such conditions. Then, when the germs of disease were rife in every home and thick on the garments of every man, Columbus discovered America. At once, the vastest tragedy in human existence began. The New World was swept from end to end by recurrent pestilences of air- and water-borne diseases, such as smallpox, measles, and cholera. Whole tribes and nations were destroyed or decimated. But an even greater part was played by consumption. This disease particularly affects such dark and ill-ventilated houses as are built by men of European race in cold climates. The natives of all the temperate parts of the New World melted away before it. They could not at once achieve, under the worst conditions, an evolution which the natives of the Old World achieved during the course of many centuries, at the cost of hundreds of millions of lives, under conditions that became worse only very slowly. Nowhere in all the temperate parts of the New World has a settlement of white men a native quarter such as every white settlement has in Asia and Africa. The destruction wrought among the inhabitants of the tropical forests was less. Malaria, to which they had become resistant, protected them from the inrush of Europeans, while the abundance of heat and light, and the absence of towns and cities, checked the prevalence of consumption. While, therefore, the native races of all temperate America, as well as of all Australasia and Polynesia, seem irrevocably doomed to extinction, it is possible that the aborigines of tropical America, strengthened as they have been by a large infusion of European blood, may persist. In the more temperate regions even half-castes perish of consumption; hence the absence of a mixed race.

The political effects of the invasion of the New World by the disease of the Eastern Hemisphere have been very remarkable. Spain and Portugal, powerful nations in the fifteenth and sixteenth centuries, had the first start in the race for empire, and chose the seemingly richer tropics. But there malaria checked colonisation, and consumption did not cause the elimination of the natives. The weaker British were shouldered into the inhospitable north, where the vast void cleared by disease gave their race almost limitless room

for expansion. Subsequently, they secured all Australasia, in which the conditions are similar. In the New World, then, the Anglo-Saxons have founded permanent empires. Under no probable conjunction of circumstances are they likely to be uprooted. But the fate of their Old World dependencies will be different. Here the natives outnumber, and will always outnumber, them. In the course of time they are sure to be expelled or absorbed. Their fate will be like that of the Romans and the Normans in England, not like that of the Saxons, who nearly exterminated the Britons. Disease has spread over the whole world, and no other race will ever again have the opportunities so unconsciously used by the Anglo-Saxons. So vast and fertile are their territories that it seems probable that their world-predominance in the future has been secured by disease.

Roughly speaking, the stimuli under which a human being develops are three in number: nutrition, use, and injury. All individuals develop at first under what may be regarded as the sole stimulus of nutrition. Thus up to the time of birth the human being develops under the influence of this stimulus alone. Subsequently some of his structures continue to develop under it; for example, his ears, his hair, and his teeth. He never uses his hair nor his external ears in any active sense; obviously, therefore, they grow simply because they absorb food. He uses his teeth, but we have no reason to suppose that they would not grow equally well if he did not use them. But after birth other of his structures develop little, if at all, except under the added influence of use; for example, his limbs, his heart, and his brain. If no strain were placed on these structures, they would grow little, if at all. Food alone is not sufficient for their continued growth. Lastly, if the individual be injured at any time, as by a cut, the stimulus of injury causes growth to take place during the process of healing. In man the development which results from injury is of infinitely less importance than that which results from nutrition, and from nutrition plus use.

Now, since no parts can be used or injured unless they first exist, and so are capable of being used and injured,

nutrition must always play the first, and generally the principal, part in the development of living beings. And, moreover, when living beings first came into existence, it must have played the sole part in their development, until subsequently there was evolved the power of growing under the stimulus of use and injury.

The power of growing and developing under the influence of use is apparently quite a late product of evolution. It seems quite absent except in the higher animals, and is present to the greatest extent only in the highest. Thus an adult man owes the greater part of his bulk to growth made under the influence of use; but there is not the least evidence that most insects, for example, owe any part of their growth to its influence. They grow, as the infant grows before birth, under the sole influence of nutrition. Indeed, the most of their structural changes occur when they are quiescent undergoing metamorphosis; that is, when they are not using the growing part of their structures. But it is not body, but mind, that supplies the clearest evidence that the capacity of developing under the influence of use is a late and a high product of evolution. This is easily seen when we contrast the mental development of a typical insect with that of man.

A certain beetle (*Sitaris*) lays its eggs at the entrance of the galleries excavated by a kind of bee (*Anthophora*), each gallery leading to a cell. The young larvæ are hatched as active little insects, with six legs, two long antennæ, and four eyes, very different from the larvæ of other beetles. They emerge from the egg in the autumn, and remain in a sluggish condition till the spring. At that time (in April) the drones of the bee emerge from the pupæ, and as they pass out through the gallery the *Sitaris* larvæ fasten upon them. There they remain till the nuptial flight of the *Anthophora*, when the larva passes from the male to the female bee. Then again they wait their chance. The moment the bee lays an egg, the *Sitaris* larva springs upon it. Even while the poor mother is carefully fastening up her cell, her mortal enemy is beginning to devour her offspring; for the egg of the *Anthophora* serves not only as a raft, but as a repast. The honey, which is enough for either, would be too little for both; and the *Sitaris*, therefore, at its first meal, relieves itself from its only rival. After eight days the egg is consumed, and on the empty shell the *Sitaris* undergoes its first transformation, and makes its appearance in a very different form. . . . It changes into a white fleshy grub,

so organised as to float on the surface of the honey, with the mouth beneath and the spiracles above the surface. . . . In this state it remains until the honey is consumed; and, after some further metamorphoses, develops into a perfect beetle in August.*

Now, the notable thing about *Sitaris* is that he appears to have no memory. He seems to learn nothing; for instance, he does not *learn* how to do anything. Many of his actions he does only once, and all of them he does as well the first time of doing as the last time. Memory, therefore, would be of no use to him. He arrives in the world perfectly equipped for the battle of his life, and is quite independent of all experience. He absorbs food, and, as he grows, his mind, such as it is, develops. Nothing besides the food is necessary for its development. He uses his mind, but the use of it does not add anything to it. His mental characters, therefore, are all inborn. They are instincts. An instinct is an emotional impulse which develops under the mere influence of nutrition, and which prompts to a corresponding action, the instinctive action. A man is very different. He is born very helpless, with few instincts, most of which are very imperfect. He has the instincts of sexual and parental love, but he *learns* to love this or that particular person. He has the instinct to sport, and so to develop his body by using it. He has the instincts of curiosity and imitativeness, which cause him to use his mind, and so to develop it. He has, besides, the instinct to eat when hungry, and to rest when tired, and one or two other instincts. But, on the whole, his equipment of instinct is reduced to a minimum, which is the reason he is so helpless at birth. But he has an enormous memory, a most prodigious power of growing mentally as he uses his mind. From birth forward he continually stores experiences, by which he guides his future conduct, and thus becomes the most helpful of animals. Only a very little part of his mind, therefore, is inborn and instinctive; immensely the greater part is acquired, in the sense that it develops under the influence of use, of experience.

* Lloyd Morgan, *Animal Intelligence*, pp. 438, 439.

Now, because the beetle's mind is inborn, owing nothing to experience, therefore one beetle is mentally almost exactly like every other beetle of the same species. If different beetles have different experiences, that makes no difference to their minds, since they are incapable of profiting by it. But, because a man's mind develops almost wholly under the influence of experience, the minds of no two men are alike. Think how different are the minds of the various people in this room—how different the contents of their memories, how different their hopes and fears, their ideals and ambitions, and temptations. If, were it possible, we exchanged minds one with another, and were conscious of the change, we should feel almost that we had entered a new and extraordinary world. But if one *Sitaris* exchanged mind with another, he would not know the difference. In brief, our minds differ because we are able to store in memory our experiences, which are never alike in any two men. The minds of beetles, on the other hand, are alike, because they are not affected by experience. According to the experience he has, an average baby may become a fool or a wise man, a yokel or a statesman, a savage or a civilised man, a saint or a thief. He may be trained to love or abhor a particular religion, or code of morals, or country. *Sitaris* can be trained to nothing, because he is able to learn, to remember nothing. It is possible to trace the evolution of memory, of the power of learning by experience. In the fish and frog this power is extremely limited. These animals have almost purely instinctive minds. Their bodies also appear to develop almost solely under the influence of nutrition, for frogs imprisoned in cavities from the tadpole stage have emerged with the body and mind fully developed. The cat, on the other hand, learns much. By its play it develops both body and mind. A dog is still more capable of learning. This capacity of learning and utilising experience is what we term "intelligence." All our domestic animals have some intelligence, which is why we are able to tame them. Man, the latest product of evolution, is pre-eminent above all other animals in his capacity for storing and utilising experience. It is this

that makes him human. It is this alone that makes him rational. All thinking depends on memory. Such an animal as *Sitaris* cannot think; it can only feel. Man is inferior to *Sitaris* in instinct, but in intellect, which is the product of stored experience, he is immeasurably superior.

To sum up, man is distinguished from all other animals, first, by his enormous power of storing mental experiences, a power which we term "memory"; and, second, by his equally splendid power of utilising the contents of his memory, a power which we term "reason." These powers are possessed by all races of mankind, and by all sane individuals; though it may be that this or that race or individual has greater powers than another. Similarly, all races and sane individuals have the same instincts; for these, like memory and reason, are not sudden developments, but products of prolonged evolution. It is possible, of course, that one race or one individual has more or less of this or that instinct than another, but the difference can seldom be great. No word is more abused in popular, and even in scientific, literature than "instinct." Thus we often hear of the "instinct" of the savage for tracking game. But no savage baby is born with a knowledge of the appearance and habits of wild animals, nor does the knowledge arise in him during later life, in the absence of experience, any more than a knowledge of literature arises thus in a civilised baby. Presumably, an English child, under fit tuition, would acquire the knowledge just as quickly and easily. So also we hear of a blow being dodged "instinctively"; but no human being dodges blows until he has learned the nature of blows and how to avoid them. In the house-fly, on the contrary, the knowledge, if we may so term it, of dodging blows is really instinctive. We hear of the human "instinct" of fear; but a baby fears nothing till he has learned what to fear. We hear of the "instinct" to scratch an itching spot; but, unlike the bird or the rabbit, no baby ever scratches until he has learned how and when and where to scratch. Man is almost the one mammal who is unable to swim instinctively. It is, indeed, very plain that instincts have greatly dwindled in

man. It is fortunate for him that they have dwindled. The loss of them has rendered him all the more adaptable. Reason is a greatly superior substitute, provided his parents tend and protect him till he has acquired it.

We know that different individuals and races of men differ greatly in body and mind. Thus the Englishman has one set of physical and mental characters, the Chinaman another, and the west-African black a third. We know that, to a large extent, the physical differences between races are inborn, and we are apt to assume that the mental differences are also innate. But when we remember how little is instinctive in the mind of man, and how much acquired, a strong suspicion is raised that we are mistaken in supposing that inborn mental differences between races and individuals are so great as are commonly supposed, or, at any rate, are of the kind that most people think they are. In practice, we assume that mental training is everything, and for that reason we carefully educate our children, seeking to endow them with a fund of useful knowledge, with energy and ability, and with high ideals. But if we meet a man who is clever or stupid, or energetic or slothful, or morose or amiable, and so forth, we almost invariably assume he has been made what he is by nature, not by the experiences through which he has passed. We cannot settle the question as to whether nature or nurture plays the most important part in moulding character by observing individuals, for, after training a man under one system, we cannot make him young again so as to train him under another. But what we cannot observe in the case of individuals we can observe in the case of races, which, after all, are only aggregates of individuals. Races are perpetually young, for each generation starts afresh. The so-called old races are only races whose history is known for a great length of time.

Many races quite suddenly changed their mental environment. That is to say, the new generations have been differently trained, have developed under different sets of mental experiences, as compared to their ancestors. If, under these circumstances, the race has changed its mental char-

acters, we may be sure that the alteration is an acquired, not a germinal, one; for the latter can occur only under a very slow process of evolution or degeneration extending over many generations. The Greeks are a case in point. At first they were rude barbarians, apparently in no way distinguished from the surrounding tribes. Then quite suddenly, in quite a few generations, they became the most splendid race of which history holds record. Subsequently, with equal suddenness, they became an exceedingly wretched and degraded people. Obviously, these great mental differences were due in the Greeks to mere training, not to a process of evolution. A remarkable thing about Greece, in its period of greatness, was the vast number of able men that it produced. Among a population hardly equal to that of an average English county more really great men arose in a couple of hundred years than all Europe produced in fifteen centuries. Ancient Rome is another case in point. It also produced numbers of able men in quite a short time. Much the same thing happened in western Europe during the fourteenth and fifteenth centuries. Flocks of great men arose in all countries that the Renaissance touched; that is, in all countries in which Greek learning and Greek methods of thought were revived. The doctrine of averages and the theory of evolution forbid the belief that these crowds of great men were due to sudden innate, that is germinal, changes in the races that produced them. On the contrary, we are forced to the conclusion that they occurred in greater numbers in some generations than in others, because in those particular generations the youth were better trained mentally than in preceding and succeeding generations. And this belief forces on us the corollary that the mental status of any individual or of any race is not necessarily in accord with the innate mental powers. It may be due, and generally is due, largely or wholly to mere training, to mere education.

The truth is vividly illustrated by a study of the mental effects produced on their followers by various religions. Every religion influences its followers, not only by its distinct doctrines, but even more by the method by which

the doctrines are taught. Some methods of religious training permit much greater intellectual freedom than others, even when the doctrines are much the same. Thus the Protestant section of the Christian religion imposes fewer restrictions than the Greek church. A little thought makes it evident that every race is enlightened and progressive, and produces men of distinguished achievement, precisely in proportion to the intellectual freedom permitted by the religion it follows. Mahomedans, Buddhists, and Hindus produce few great men. Mediæval Europe produced few. Modern Christianity is divided into three great sections. For the last century and a half almost every man who has achieved world-wide fame has arisen from among members of only one of those sections, or has been a rebel against the doctrines and restrictions of the other two. This section of Christianity has not a monopoly of innate genius, but it has a large monopoly of effective genius.

All this evidence renders it abundantly plain that mental power is not a mere matter of innate capacity, but is very largely a matter of intellectual training. No doubt men differ as much in their inborn mental capacity as they do in bodily powers; but the former is much more difficult to detect. You can train a man of great innate capacity to have every appearance of a fool. You can so train a man of comparatively mean capacity that among worse-trained men he has every appearance of ability. When, therefore, we meet a distinguished man, it is unsafe to jump to the conclusion that he is necessarily of great mental capacity. And when we see a distinguished son follow a distinguished father, it is not entirely safe to conclude that great innate capacity has been inherited. We must remember the child's imitative instincts and the environment in which he has been reared—an environment in which his father, with his own intellectual methods and his energy, bulked large. Statistics of distinguished families illustrate the power of training quite as much as they do the power of heredity.

Since, with rare exceptions, variations of offspring from parents are spontaneous, it is obvious that we can

improve a race only, as breeders do, by restricting the output of offspring to individuals who have varied favourably. But we have seen how vast are the acquirements of man. Therefore we can often greatly improve the individual by improving the conditions under which he develops. We have our choice then. Shall we improve the innate qualities of our race by eugenic breeding; or shall we improve the acquirements of the individuals of the race by improving their surroundings; or shall we do both? I think all people with any sense of duty to their fellow-creatures will declare that, if practicable, we ought to do both. We should bear in mind, however, that, were eugenic breeding possible, we could improve the race to an unlimited extent; whereas our power of improving the individual by placing him under better conditions is strictly limited. We should remember, moreover, that an improved environment tends ultimately to degrade the race by causing an increased survival of the unfit. Our power to benefit the individual physically by improving his acquirements is less than our power to benefit him mentally. Most civilised people develop under fairly good physical surroundings. Only in the slums of great cities, as a rule, is bodily growth much stunted and the individual enfeebled by insufficient nourishment and by bad hygienic conditions. There is every hope, besides, that, with the spread of knowledge and the awakening of the public conscience, the worst features of slums will disappear in the near future. If, then, we wish to improve the nation physically, it must be mainly by selective breeding. Since we are a strong and robust race, most people will agree that this is unnecessary as regards stature, strength, and stamina. But, as we have seen, certain types of men are unfit for existence under civilised conditions of life; for example, people susceptible to consumption or to the charm of alcohol. The experience of very many centuries has proved that it is impossible to abolish the abuse of alcohol. Among civilised peoples especially, repressive measures—at any rate, severely repressive measures—actually increase the total amount of drunkenness. It will, I think, prove equally impossible to

banish the tubercle bacillus. It is spread by the mere act of coughing. Improved hygiene will result in such a revival of people susceptible to consumption that the mortality will always tend to keep pace with the improvements. In the Pacific Islands a very susceptible race dwelling under ideal hygienic conditions undergoes extinction when consumption is introduced. Probably, therefore, our only hope of permanently reducing the mortality and misery caused by intemperance and consumption lies in selective breeding.

As regards mind also, we have our choice between selective breeding and an improved environment; that is to say, improved mental training, improved education. No one who contrasts the ancient Greek type of mind with the modern Thibetan type, and realises that the difference resulted mainly from mere education—who knows that the cannibal Maoris in a single generation have acquired all the characteristics of a civilised race except the power to resist disease—who is aware that during one year a school of aborigines produced better results than any school of white children in Australia—who thinks of what Japan has done within thirty years; and who perceives how vile is the present system of education in this country, especially the education of the upper classes, will doubt that it is in our power to effect an immense and immediate improvement in mind. There is no reason why we should not rival, and even surpass, the Greeks. We have their example, a knowledge of their methods. We could stand on their shoulders, and we possess a vastly larger fund of positive knowledge. The subject of education is far too large to enter on here, but we may note that, when we compare Greek and modern methods of instruction, one fundamental difference becomes manifest. The Greeks taught their youths how to think; we teach them what to think. The Greeks devoted their main attention to developing the understanding; we devote ours to loading the memory. Whatever the Greek boy learned linked up with the interests of adult life, and was therefore remembered. Much that the English boy learns has no bearing on the interests of adult life, and therefore is forgotten.

In brief, the Greek youths were educated in a real sense; the English youths, in a sense, are merely crammed. Dogmatic education is, of course, the merest cram, with the added element that care is designedly taken to stifle independent thought. Classical education in which the language, but not the methods of thought, of the ancients, is inculcated is also cram. But perhaps the least excusable form of cramming, since it is perpetrated by men who should know better, is that utter neglect of the reasoning faculty, combined with an enormous overloading of the memory, by means of which the thinking powers of scientific students are destroyed.

So vast might be the benefit to mind which would quickly follow a mere improvement of education that, until we have done all that is possible in this direction, any attempt to exalt the innate mental qualities of the race by the slower process of selective breeding would be lost time. As we have seen, such an attempt, owing to our present lack of means to distinguish in practice between inborn capacity and acquired ability, would present peculiar difficulties. In one particular, however, the selective breeding of mind is imperative. The number of the insane is very rapidly increasing in all civilised countries. Various explanations have been offered. It is said that the stress of modern life is the cause of the increase. But there is no evidence that the stress is greater than formerly, except perhaps among that small class which is wealthy enough to devote itself to pleasure. The falling death-rate would seem to indicate the contrary. Moreover, the rise of insanity is as great in remote country districts, where conditions have changed little—for example, in the west of Ireland—as in towns. Again, it is said that the rise is due to parental intemperance and consumption. But consumption and, probably, chronic alcoholism are much less than formerly. Moreover, this theory is opposed to the doctrine of natural selection. Were it true, life would be impossible on earth. Yet again, it is thought that improved medical treatment has caused insane people to live longer, and so to accumulate, and that the registration of the insane is more efficient than formerly.

No doubt this theory contains a large element of truth; but the rise of insanity is so great and continuous that it is manifestly insufficient to explain the whole facts. We must seek for an additional factor. Formerly, the insane were treated with the greatest barbarity.

While many were burned as witches, those who were recognised as insane were compelled to endure all the horrors of the harshest imprisonment. Blows, bleeding, and chains were their usual treatment, and horrible accounts are given of madmen who had spent decades bound in dark cells . . . Not until the eighteenth century was the condition of this unhappy class seriously improved.*

We may judge of the former treatment of the insane from Shakespeare's words: "Love is merely a madness and I tell you, deserves as well a dark house and a whip as madmen do."† Until very recently, then, in the vast majority of cases, the unfortunate lunatic was placed under conditions which insured death or permanent insanity. From the moment his mental unsoundness declared itself he ceased to have offspring. The natural selection of the sane, therefore, was very stringent. For some generations past, however, lunatics have been treated with great humanity and skill. Beyond all classes of the community, they are now watched over by the state. Men of sound mind, but suffering from bodily illness, may perish in the slums for want of proper nourishment and care; but the insane are removed to special sanatoria, where, without expense to themselves, they receive food and lodging, and are placed under the care of trained nurses and medical specialists, over whom in turn the Commissioners in Lunacy exercise a jealous supervision. As a consequence, the lunatic frequently recovers, and is restored to his family and to the right to have as many children as other people. Here is a case in point. A lady writes:

For years I have been struggling to prevent idiots and lunatics being sent from our county asylum to marry and breed idiots—just as

* Lecky, *History of European Morals*, Vol. II, pp. 86, 87.

† *As You Like It*. Act III, Scene 2.

if the thing were desirable. I gave it up in hopeless despair about four years ago, owing to the following case: A woman who is more than half idiotic came to live with two sisters—one a total, the other a partial, idiot. She married a very dull, partially idiotic man, and had almost immediately to be taken to the asylum. There she gave birth to a complete idiot, and was sent home a few weeks afterwards, with the result that the same thing has been repeated nine times.*

The severity of natural selection with regard to the insane has been greatly reduced; and, as in all similar cases, characters which selection formerly eliminated are tending to become more common. The huge brain of man is a very complex and delicate machine. A defect (an unfavourable variation) in any of its parts is apt to throw the whole out of gear; and, like other variations, such a defect, such a predisposition to insanity, tends to be inherited. Unless, therefore, we find means to check the output of children by the mentally unsound, the insane will multiply until the state is no longer able to bear the weight of their maintenance. Selective breeding in this case is a dire necessity, and, therefore, a certainty in the near future.

As I understand him, Mr. Galton proposes to exalt our race by encouraging the finest types to have large families. I venture to suggest, instead, that, for the present at least, we shall limit our efforts to discouraging the multiplication of the most unfortunate types. The latter proceeding would be more practicable; since, as regards mind at least, the feeble types are more easily detected than the best, and since it is always more easy to stop a horse drinking than to make him drink. But, as a fact, both Mr. Galton's suggestion and my own are utterly impracticable in the present state of public opinion, and even, if I may say it, of public intelligence. Before the one proposal or the other can be thought of as anything more than a mere subject for academic discussion, we must have a more enlightened public, a wider diffusion of the knowledge of the laws of heredity. Of sheer necessity, that diffusion of knowledge will come ere

* Quoted by Dr. Rentoul.

long. I think I know the path it will follow. The medical profession comprises the largest and, if united, the most powerful body of scientific men in the world. At present no systematic instruction in heredity is given to its members. Presently that will be changed. The doctor will realise that other things and more things are known about heredity than he supposes. He will recognise that the science is not summed up by the hypothesis that, if a man contracts a disease or is drunken, his offspring will tend to be sickly or insane. He will perceive that the facts of heredity are just as essentially and naturally a part of his medical equipment as the facts of physiology and anatomy. At present he is in no way distinguished intellectually above his contemporaries of the same social stratum. Man of science though he be, he and his fellows contribute less to the thought of the nation, and guide public opinion less, than any other of the great professions. But when he studies heredity, he will understand the development of mind in the individual; he will separate the acquired from the inborn, and will know why certain systems of education have depressed some nations, whereas other nations have been exalted by different systems; and then he will reform his own education and come into his kingdom. Indeed, the mere study of heredity will constitute the necessary reform; for, though the additional facts with which he will have to load his memory will be few, yet the close, accurate, and prolonged course of thinking that he will have to undergo will develop his intellectual powers; and, lifting him above the often petty minutiae of his daily life, will bring him in contact with many great subjects. A trained expert now in all that is connected with the development of the body, he will become a trained expert in all that is connected with the development of mind. His will be the most commanding voice in that most vital of all questions, the education of the young. Under his influence, mental training will become scientific, in the sense that it will be conducted with a full knowledge of means and ends. In that day he will perceive also that selective breeding, the only possible remedy against dangers

that loom great and terrible in the future, is really a question of public health; and then men like Mr. Galton, who have devoted their lives to a noble purpose, will not speak to a small and impotent circle, but to the intellectual flower of the nation.

DISCUSSION

DR. SCHOFIELD SAID:

I would say two things. I should like to protest against what Dr. Reid calls the medical view of heredity. However much the medical profession may believe that the acquirements of parents influence their offspring, it is still a question in what way they do influence it. Dr. Archdall Reid seems to take it for granted that if disease occurs in a community, a tendency to disease must be transmitted. His point is that though no change is transmitted from the acquirements of the parents, yet increased resistance is produced in the offspring. I maintain, I think in common with the profession, that this resistance is due to the acquirement of the parent.

As I understand, Dr. Reid claims that mutations or variations are due to unascertained causes. To say they arise "spontaneously" is, I think, only a concealment of our ignorance. They are due to unascertained influences affecting the ovum itself. It is known from experiment that a slight change in the nourishment of the ovum will produce a great change in the offspring, which will be transmitted, and tend to become permanent.

The developed human ovum consists not only of germ plasm, but the nourishment received from the body of the mother during the long period of gestation. Now, though the acquirements of the parent may not affect the germ plasm itself, parental acquirements may affect the offspring during the period of gestation. Dr. Lowe has conducted experiments which tend to prove this by showing the persistence of memory in reproduction. Take the case of dogs. Rough-haired terriers will produce smooth-haired puppies as the result of memory. We find similar results in human beings. A fair-haired gentleman marries a dark Brazilian lady, and twenty years afterwards marries a fair lady, and his children hark back to the dark complexion of the first wife. This is a very interesting point; and my attention has been called lately, by a gentleman who has devoted much time to its investigation, to a further fact of great interest, that

tends to show that these acquired characteristics do not occur early in foetal life, a fact that suggests they are derived from the mother during gestation.

DR. MERCIER SAID :

Dr. Archdall Reid is an old antagonist of mine, and I am glad to see that since I last met him on the platform he has decidedly modified his views. There was a time when Dr. Reid claimed that inborn qualities were alone transmitted and that acquired qualities were never transmitted. Now he admits that a great resisting power, an acquired quality, may be inherited. I think that is a great advance. I interpret Dr. Reid's paper to claim that the better the conditions under which an organism is placed, the better it is for the individual and the worse it is for the race; and yet if we want to improve the race we must breed from the best individuals. How can we do it? To get the best individuals you must put these individuals under the most favourable conditions, but these favourable conditions are worst for the race. And yet you have to breed from the best individuals, who require the best conditions of life. So it seems to me whatever you do, you are certain to be wrong. We must be either imperfect individuals or a degenerate race—a very alluring prospect. Then, the worse the conditions of life the better the race becomes, because more of the unfit are eliminated; so it seems that all the exertions of our modern civilisation are going to produce degeneracy. Why should we try to get rid of the slums when they afford conditions for producing the finest race? Why should we try to exclude the cholera from our shores? Ought we not to reinstate all the marshes and have the ague back again? The individual will suffer, it is true, but the race will be improved. That it seems to me is the outcome of Dr. Archdall Reid's teaching.

In illustration of the fact that the germ may be acted upon by its environment and that acquired qualities can be inherited, I will tell you of some experiments which I hope to produce in more detail hereafter. It is known that gourds vary very much in shape and also vary in size from a cherry up to a pumpkin. I took two gourds, one round, globular, smooth, known as the "white onion," and the other deeply grooved like a tomato. I took two such gourds and grafted them together, and the two grew as one gourd. Then I took the seed from this grafted gourd and observed the fruit I got from the progeny. If Dr. Reid's contention is true, the seed ought to have reproduced itself truly, the "white onion" seed ought to have produced "white onions," but it did not. The "white onion" seed produced a gourd that was grooved—not as deeply indented as the graft, but intermediate in character between the two grafted gourds, so that practically the offspring I got

had four parents. These were the pollen parent and the seed parent, and then there were the pollen and seed parent of the grafted gourd. That seems to me proof positive, as far as it goes, that the shape and the characters of the offspring were modified by the influences to which they had been subjected and the character of the sap with which it was nourished when it was a young germ.

DR. C. W. SALEEBY SAID :

Time was when the wise believed what the foolish still repeat, that human nature is the same in all ages, but we have known, now for half a century, that human nature is not the same in all ages; that it was once simian nature, once vermillion nature, once lower still. The establishment of organic evolution is the establishment of the truth that progress is possible, since progress has occurred. The ennoblement of our kind is, therefore, not a Quixotic enterprise. The fact that it has been suggested by the descendant of the beasts that perish is in itself a proof that it is possible. What the beast has done man can do. So far we are all agreed. But when we come to formulate precise directions for bettering the race, opinions begin to differ.

In a paper on "Human Selection," published in the *Fortnightly Review*, in 1890, Mr. Alfred Russel Wallace deals with this question of the improvement of the race "by natural process." The paper was written mainly for the purpose of opposing the various "artificial processes" of selection, as he calls them, advocated by Mr. Francis Galton and others. I quote from his recent autobiography: "I showed that the only method of advance for us, as for the lower animals, is in natural selection that can act alike on physical, mental, and moral qualities. This will come into play under a social system which gives equal opportunities of culture, training, leisure, and happiness to every individual. This extension of the principle of natural selection, as it acts in the animal world generally, is, I believe, quite new, and is by far the most important of the new ideas I have given to the world."

A point made by Mr. Wallace in a companion article was that "a more real and effective progress will only be made when the social environment is so greatly improved as to give to women a real choice in marriage, and thus lead both to the more rapid elimination of the lower, and more rapid increase of the higher types of humanity." Mr. Galton's scheme, says Dr. Wallace, is both "unscientific and unnecessary." Here, then, we have one version of the application of the principle of selection.

Secondly, we have the version which is favoured by Dr. Reid, Mr. Wells, and many others. "It would be more practicable to copy

nature and eliminate the worst," says Dr. Reid. "We must copy nature and breed from the best," says Mr. Galton.

But as far as I can see, these two interpretations are not merely not antagonistic; they are not merely complementary; they seem to me to imply one another. Some say that the destruction of the worst is incapable of achieving progress, capable of merely preventing retrogression. Others say that the selection of the best is impracticable. But surely our terms are relative? Surely the elimination of the worst necessarily implies the selection of the better? Complete encouragement of the better and complete discouragement of the worst would surely be different ways of expressing the same fact. I hold, therefore, that this claiming of nature as being definitely in favour of the one method or the other is a mere confusion of thought, and therefore I cannot accept the dictum of Mr. Wells: "The way of nature has always been to slay the hindmost. It is in the sterilisation of failures, and not in the selection of successes for breeding, that the possibility of improvement of the human stock lies." The antithesis is an imaginary one. I think, then, that we must steadily preserve the two-fold aspect of eugenics, the one positive—the encouragement of the better; the other negative—the discouragement of the worse; each of which implies some measure of the other, and each of which is nature's method.

Now perhaps I may be allowed to look a little further into the negative aspect of the eugenic proposal. I quote from Dr. Reid: "Owing to improvement in medical science, defective people are now surviving in much greater numbers than formerly. As proved, for example, in the enormous increase of the insane, the race is threatened with real deterioration." Therefore we are to step in with preventive measures—such as that compulsory sterilisation of the unfit, which seems to me to be the most ludicrously inept of serious proposals.

Instead of considering measures which are palpably impracticable, we would do better to remember Mr. Wallace's hint, and endeavour to make more use than before of female selection, or of what Professor Karl Pearson calls "preferential mating."

One word more as to this asserted rapid multiplication of the unfit. Are we quite sure that we have defined our terms? If the unfit can rapidly multiply, they are not unfit, but fit. Surely we are making the old confusion between the fittest and the best. But the unfit, who are asserted to be multiplying so rapidly, are also asserted to be inferior mentally or physically, or both; they are degenerate. But when we come to look into the essential character of degeneracy, we find that it consists of a relative or positive sterility, so that one is tempted to remodel the familiar phrase and talk of the rapid multiplication of the relatively sterile, which is a *reductio ad absurdum*. It amounts to this: those who believe in the rapid multiplication of the unfit deny the

proposition of the survival of the fittest; they believe in the survival of the unfittest—a proposition which, as Spencer pointed out when he disposed of the late Lord Salisbury in the *Fortnightly Review*, is inconceivable.

On the contrary, when we turn from the consideration of the worse, of whom I have ventured to assert a relative sterility, and proceed to contemplate the very best, we find here also the paradox of relative sterility; because those whom we now conceive as the very best are not the very best from the racial point of view, but from the individual point of view. In virtue of that antagonism between individuation and genesis, which Spencer discovered, the very best, being engaged in making the utmost of their individual lives, have less energy to spare for reproduction—that is to say, for the racial life. This being so, I hold that it provides us with a special argument in favour of devoting our efforts more to the positive aspect of the eugenic proposal. In brief, my argument is that there is relatively little need for us to preach a campaign of sterilisation against the consumptive, the drunkard and the insane. Despite assertions to the contrary, these, in virtue of their unfitness, are relatively sterile. If unfitness means anything, or has any criterion, it means unfitness to reproduce. On the other hand, we find that the very best also tend, in virtue of Spencer's law, towards infertility, an infertility which as eugenists we deplore. *A priori*, then, it would appear that we are likely to effect more by encouragement of the fittest—since their fitness from our point of view is not proportional to their reproductive aptitude—than by discouragement of the unfit, who are, *ex hypothesi*, already beset with discouragement.

Perhaps I may elaborate this argument a little further. The point is that the higher the individual type, the less is its fecundity. This holds true throughout the whole organic world, and it is equally true in the society of the present day. One cannot eat one's cake and have it: cannot write a system of philosophy *and* successfully bring up a large family. The energy available by any one of us is finite, and if it be expended upon the race it cannot remain for the service of the individual. If expended for the individual, it is not available for the race.

No eugenic system will alter this fact, but it surely lends added force to the contention that, at any rate, we should do what we can by way of removing any difficulties that may beset the marriage and intermarriage of the worthy. The granting of eugenic certificates for marriage, the development of social opinion in the direction of added respect for the parents of worthy children, these and many other measures, most of which are in more or less vigorous action already, will tend towards that encouragement of the best which is as certainly part of nature's method as is the destruction of the hindmost.

DR. ROBERT JONES SAID :

It is always a pleasure to hear a paper from Dr. Archdall Reid, even if, as on the present occasion, one is compelled to differ from him widely. Upon occasions previous to the present I have heard Dr. Reid assert that the environment plays no part in the "acquisition and transmission" of physical characters. As has already been pointed out, there appears to be less confidence in this assertion than heretofore, and we may believe that to some extent, and even in some degree, the view formerly held by the reader of the present paper has become subject to modification, or if not modification, to reconsideration. In the first place, I cannot agree to the statement made in regard to acquirements and variations. I do not believe that the course of nature is an absolutely fixed and unalterable one. It is not nature's method in diseases to be governed by fixed rules. The very essence of evolution means a change. There are in nature delicate and imperceptible gradations—owing to individual dissimilarities—towards development, improvement, and, if you will, perfection in certain directions; but as these are slow within the memory of man, they are also necessarily slight. The very conception of the substance protoplasm—the "physical basis of life"—is its readiness of response to environmental changes, and it was the axiom of a French biologist that in the vegetable world characters which were the result of a reaction on the part of the organism to its environment were in the nature of adaptation, and tended to become fixed. We know that Alpine plants have a certain "facies"; they are stunted in size, but brilliant in bloom. Moist tropical flora, together with the flora of the dry desert, have each their "facies." Dicotyledonous plants have, as a rule, finely dissected leaves when growing under water. All these characters are acquired through environmental changes, and they are transmitted because the seeds transmit the characters—the plants all coming true by the seed. Precisely so with human beings. Everything tends to become hereditary which is fundamental and affecting the relation of the individual to the environment, and in a few generations acquired traits tend to become fixed, and to be inherited. Nothing is more convincing than this fact to those such as myself, whose experience and life-work have to do with the degenerate and deteriorated class—the insane. We know perfectly well that an unhealthy, vitiated environment, with want, squalor and starvation, breed a vitiated constitution, and with this vicious organisation comes mental decadence. The response on the part of living protoplasm to changes in the environment is an actual fact: these changes in the organism are adapted to the new conditions, and eventually nature tends to fix them. The statement made by Dr. Reid that "changes in the nutrition" do not,

except in very rare instances, cause variations in the offspring, is in my opinion a contradiction of all the experience of practical men, and he quotes the incidence of malaria as evolving a resisting power which has had "very remarkable consequences," and that races long exposed to malaria and phthisis have become resistant to it. Is there the slightest support for this remarkable statement? The experience of Koch and others in South Africa is directly opposed to this view, and at the recent Congress of the German Association of Naturalists and Medical Men held at Meran in the Austrian Tyrol, Meyer stated that there was no such thing as congenital immunity; in other words, these races have not—to use Dr. Reid's expression—"undergone evolution against disease." Koch has ascertained that the children of the native population were liable to contract tropical diseases from the protozoa of malaria and trypanozoma, and died from these causes in great numbers; and there was no "evolution against the disease." Moreover, the children who survived these attacks, when they reached adult life, were erroneously believed to be exempt. The statement made by Dr. Reid that disease eliminates the unfit needs serious qualification, for in the disease called *pellagra* which affects agricultural districts in Italy, although the disease is not always fatal and apparently not hereditary, the descendants become degenerate, for every organ of the human body becomes affected by a common toxic process. Disease, as we know, is a remorseless and indiscriminate weeder, and not a beneficent eliminator of the unfit only as Dr. Reid suggests. Consumption weeds out a Keats as well as a slum dweller, cancer removes an Emperor Frederick or a Gladstone as well as the idler and the useless, and blindness afflicts a Milton or a Fawcett as well as a beggar upon London Bridge. Moreover, when disease fails to eliminate, it nevertheless wounds and maims and renders incompetent.

Dr. Reid's theories, in my opinion, although attractive and clever, are not only fallacious but they are dangerous and fatalistic. Dr. Reid grows anxious about the enormous increase of the insane, because, as he states, the race is thus threatened with real deterioration; but the only gauge of this enormous increase of the insane is the Registrar-General's report of the admissions into asylums. If they are admitted into asylums, they cannot, in the sense adopted by Dr. Reid, be a threat; for in this detention there is, in his own words, an "obstruction to the output of children," and it is a sad reflection that the percentage of cures of mental affections are less now in proportion to the insane population than they were half a century ago. Dr. Reid's panacea is "systematic instruction in the laws of heredity," but I ask, What are these? At present the facts are either too few or too uncertain to found any laws which can be called "the laws of heredity," and there is at present neither a deductive nor an inductive proof in regard to

them. At the present time, and with the knowledge at our command, our remedy for disease is in improved sanitation and morality. Let us control inherited vice by a change in the environment, by plenty of fresh air and pure water, by radiant light and sunshine, by rational pleasures and the educational value of good food and cooking, and certainly not the least of educational influences is the removal of impressions created by social usages in respect to alcoholic drinks.

DR. SLAUGHTER SAID :

The whole group of problems arising from the application of biological principles to human beings, coming under the general term "eugenics," seem in the last few years to have polarised themselves with reference to a theoretical and a practical issue. While application must always be dependent upon the results of research, still there is a body of common-sense knowledge on which the practical eugenic propagandum bases its proposition, that better results will be obtained in the process of human breeding if this function is in the hands of those possessing superior physical, mental, and moral characteristics. Furthermore, for this practical purpose, common-sense is able to sufficiently define qualifications, and the only question open to discussion is that of how to create an interest and a sense of generative responsibility. It would probably facilitate our thinking to treat the practical proposition as incontestable, instead of confusing it with hair-splitting definitions of civic worth.

On the other hand, for eugenics as a branch of research, all questions seem to be still open; the pity is that we are compelled to use argument and speculation instead of exact knowledge. I am inclined to believe that Weismannism is useful only when taken for granted, as perspective is sometimes lost when a thesis is being supported. Too great effort to pigeon-hole inherited and non-inherited characters leads one to regard them as juxtaposed things rather than as modifications. Dr. Reid attaches importance to the very short period of historical evolution, and argues that progress must have been extra-hereditary, that is, a matter of education and social tradition. This may be largely true, but the student of childhood and adolescence is convinced that the human species has great variability, most of which is choked or stamped into type by this same education. Again, entirely apart from the facts which De Vries has so forcibly put forward, the wide distribution within the same family of so simple a matter as height inclines one to think that biological ages may not be required in order for change to become pronounced. Immunity to disease is, of course, slowly acquired, and would tend to become more so with increase of intelligence, because

it is easier to kill mosquitoes than to develop immunity from malaria and yellow fever.

The next important step in eugenic investigation, in my opinion, will be the determination, in terms of accurate measurement, of hereditary influences on mental function. An attempt has already been made by Professor Karl Pearson. When the instrumentalities of the psychological laboratory are combined with modern methods in statistics, the solution of the problem will be not only possible but at hand.

One of the interesting points raised is that of the desirability of eliminating the unfit. I would like for a moment to speculate as to whether this method would actually prove eugenic, apart from the fact of social burden, perhaps compensated by the fact that degenerates tend to be infertile. You will recall that Mr. Galton, in his Huxley lecture, based his argument on the distribution of talent according to the normal law of frequency. This distribution when plotted shows a high middle point representing the average, with the curve falling off to the highest and to the lowest. Now the law of regression of offspring, if uncomplicated, would tend to reproduce the values in the next generation; but the intention to so complicate this action by eugenic aims as to move the centre of distribution in the direction of highest talent—this, to be sure, involves elimination; but it is elimination by selection, and, more important, it operates throughout the population medium. To merely destroy the worst would not only not give an absolute increase of talent, but its influence through the law of regression upon the higher ranges of the curve would be only the slightest. After all, the best and the worst are thrown off in the generative process, and probably, in some respects, pass the limits of physical, mental or moral normality. Deficiency in the highly specialised genius class would probably accelerate regression in the next generation, and so defeat the eugenic intention. It might, then, be of greater consequence to prepare the matrix from which genius grows, namely, the high talent class.

THE CHAIRMAN SAID

that Dr. Archdall Reid had chosen a fertile subject for his address. Undoubtedly sociology rested on a biological foundation and was, as it were, the flower which grew upon the stem of biology. The latter dealt with the operation of variation and selection in determining the structure and functions of an individual, and man as the unarrested central shoot of the biological tree appeared as the highest achievement of biology. But man himself furnished but the raw material for sociology. It was therefore with good reason that August Comte said that "the leading

principles of biology will always be regarded as stepping stones to the fundamental conceptions of sociology."

The Chairman (proposing a vote of thanks to Dr. Reid) added that the discussion showed there was plenty of work for the Sociological Society to do. Even experts were not in complete unanimity. If in the very precincts of the temple there was so much divergence of opinion, what must be the state of opinion amongst the outside public? There was evidently a large amount of material for the Sociological Society to work upon. For himself, he had been drawn first one way, and then the other, and the equilibrium he had reached was not entirely in accordance with the view so lucidly expounded by the lecturer.

WRITTEN COMMUNICATIONS

FROM DR. H. ASHBY.

Dr. A. Reid is doubtless right in emphasising the importance of the facts of heredity in throwing light on many social problems. He has done good service in so plainly putting forward the facts, and dispelling many myths which have hitherto been largely accepted as facts, by those who have never examined the evidence afforded by biology.

He has clearly set forth that variations are very rarely due to the direct action of environment and that the source of variations lies in the nature of the germ-plasm. He aptly illustrates this by instancing how a litter of puppies while agreeing in a general family likeness, yet differ from one another in physical and mental characters. The same variations are seen in the human family in the case of "twins." Twins often have a close resemblance to one another, in family likeness and in disposition; but on the other hand they always differ in minor degree and in some cases the differences are very marked. Thus I have seen in the case of twins, that one was a "Mongolian imbecile" and the other something near average in physical characters. Both clearly had been under the same conditions during intra-uterine life, and had been fertilised under the same circumstances, and yet their variation was extreme. The variation was surely the result of a difference in the nature of the germ-plasm.

The feeble-minded or mentally abnormal child is a variation in the direction of regression; his brain and often his body are built on a lower type than the normal child, and beyond doubt such variations are apt to run in families. The child is a recapitulation of his parents and often succeeds to his parent's inborn defects in an exaggerated form. In one family I know, there are three children, two girls and a boy, who are in a special school for defectives, and two others of the same family, an older brother and sister, are moral defectives.

The slums and courts of our large cities are chiefly inhabited by the unfit, who are recruited by the failures in the industrial struggle;

and among these early marriages and illegitimate intercourse is more common than among the saner and more intelligent class. Are we right in educating, feeding and nurturing the unfit child till the period of sexual maturity arrives, and then letting him loose on society to recapitulate his kind?

Dr. Reid is right in protesting against the frequent abuse of the word "instinct." An instinct is an hereditary disposition, but acquired dispositions are constantly spoken of as instincts. A glaring instance of this may be found among the remarks of the editor of the *Spectator* (Nov. 25th, 1905). He says: ". . . . prayer remains an *instinct* deeply implanted in the hearts of all human beings!" (*Italics are mine.*)

Man is possessed of very few "perfect" instincts either ready at birth or appearing during organic development, but he has a goodly number of imperfect ones which are developed and controlled by the influences of his environment. Thus there are the emotions such as anger, fear, grief, joy, astonishment, jealousy, etc., which when sufficiently intense evoke muscular movements. Surely Dr. Reid is wrong when he says: "We hear of the human instinct of fear, but the baby fears nothing till he has learned what to fear." All these emotions are compatible with a very low mental status and are exhibited very early in life and before the infant has any experiences stored. Infants of six months old, or even younger, will start at a loud noise, or clutch their nurses when swayed about for fear of falling, or when a stranger suddenly appears. No doubt infants vary very much in this respect, some being very much more hyperæsthetic than others; and ill-health is an important factor. Doubtless, as intelligence grows and experiences are stored fears are removed or intensified by the influences by which the child is surrounded.

Environment plays a very important part from the first few weeks of life onward; the personality and wisdom of the nurse and mother vastly influences the development of the hereditary dispositions by substituting dispositions acquired by habit.

Finally, I need hardly say that Dr. Reid has more than made good his text, that if we are to dig the foundations of sociology deep and sure, it must be by the help of biological science.

FROM MR. H. BERNARD.

The driving back of all social problems to biology for their intelligent appreciation and solution is, I think, the philosophical method. I am, therefore, in full accord with Dr. Reid's purpose and spirit. And if I raise objections to his paper it is only with the view of getting a little nearer to that purpose than he has done. I am inclined to raise two objections which I hope will awaken discussion. I suggest

firstly, a *theoretical* objection to his speaking, in the title of the paper, about *THE* biological foundation of sociology, and then apparently limiting that to the problems of variation and heredity, treated moreover only in a somewhat narrow doctrinaire spirit. There are, to my mind, few biological problems which do not hang together and are not mutually indispensable, and almost any may claim a share in forming the foundation of sociology. And secondly, a *practical* objection, which is as follows: If we are to seek light on social problems from biology, we ought to seek it from those parts of biological knowledge which are already clear to us and not from those on which we are still in darkness. Dr. Reid treats his subject quite scientifically, and frankly admits that we really know nothing either about heredity or variation. The reasons for our ignorance are fairly obvious. Direct observation is extremely difficult and experimentation almost always alters the conditions. Still, experimentation seems to be the most hopeful method, and I am glad to say that it is being taken up once more with great zest, after having been dropped (as Mr. Bateson recently reminded us in one of his lectures) when Darwin's book on the "Origin of Species" appeared.

That we know nothing about the laws of variation we may gather from Dr. Reid's perfectly correct statement that the general view is, that the variation, upon the inheritance of which all progress and social differentiation depends, is spontaneous—we call it spontaneous only so long as we have not discovered its causal connections. The time may come when we shall know something of these difficult and hitherto impenetrable subjects, and be able to turn that knowledge to practical account in helping to shape society. But I, for one, am heartily glad that we have known nothing until now, and I even doubt whether we are yet ripe for the knowledge. We shall not be fully ripe until we have more enlightenment at the helm of things; either that paradox, *the perfect Despot, or the democracy of our hope* in which power is exercised with due regard to the happiness of all. If we had these, perhaps, and only *perhaps*, might we be able to use that knowledge to the real, apart from the temporary and apparent, advantage of society. It is impossible to imagine what social monstrosities might have been produced had early despots been able to differentiate their subjects by careful breeding. Races of slaves, semi-human, would now be existing by the score. Even the race of fighting giants Frederick the Great attempted to cultivate would have been, to say the least, an inconvenient element in modern society. I have never, by the way, heard whether any statistical results of his attempts were to be obtained. And we have all been horrified enough by those nightmares of our future society which, according to Mr. Wells, might easily result from the mere continuance of the present system of unequal distribution of wealth and power. The wage slaves

will be driven underground and become "morlocks," while the rich and powerful few will pass from being tyrants to being sybarites and eventually the food of the "morlocks."

But if we have not (and I think fortunately have not) the biological knowledge necessary to the effective direction of the progress of society by regulating breeding, we have a mass of recognised simple biological facts, enough and more than enough for our practical guidance. Let us confine ourselves, for instance, to that one matter which was, I take it, in the mind of Dr. Reid, namely, the cultivation of ability and possibly of genius. Now the most elementary knowledge of biological principles teaches us the absolute necessity of good food, good air, contact with nature, avoidance of monotonous and excessive work, and a certain degree of warmth, if any organism is to have a chance of being its best and producing its best. For the human organism, as a member of a social body, we recognise the need of early discipline and the development of the reasoning powers by constant reference to the facts of nature for the cultivation of mental ability.

Armed with this elementary biological knowledge, it seems to me, we have enough to inspire and guide our activities in the fields of practical reform. This Society will do a great work if only it insists upon this simple biological treatment of social problems. People are so often timid, hesitating, and ineffective, dreading always lest they should "interfere." Biological treatment will clear their view at once and concentrate their energies; whatever injures the human organism, *as an organism*, must be modified without delay, and there can be no mistake in such a demand. If we want ability and genius, we must see that every human being has a chance of developing as nature, unhindered, intended him to develop.

In concluding, I should like to make a suggestion, that a new edition of Robert Owen's Essays might be published with advantage under the auspices of this Society; I mean those essays in which he emphasises and expounds his belief in the simple, natural, biological cultivation of the human race.

FROM DR. C. J. BOND.

I agree with Dr. Reid that a systematised knowledge of the laws of heredity, as far as known, together with a further patient elucidation of the problem, are the pressing needs of civilised communities at the present day, and that such a biological basis is the real foundation on which the science of sociology must rest.

The body of men which above all others is most fitted to investigate this difficult subject, from the human race point of view, is

the medical profession. Medical men are brought into intimate contact with the facts of human breeding, and have at any rate some of the preliminary scientific training necessary to enable them to understand the facts.

Unfortunately, at the present time there is no systematic teaching of this important subject, and many medical men are dominated by erroneous ideas on hereditary subjects, such as a belief in the transmission of acquired characters.

The pressing need is for the teaching of the science of heredity as an integral part of the medical curriculum, and the establishment of research laboratories and lectureships on heredity in the universities and other centres of learning. The modern University of Birmingham might most usefully initiate this valuable new departure.

I am indeed of opinion that the future position and usefulness of the Sociological Society will depend on the active recognition by its members of this biological element underlying its work.

Dr. Reid, in common with most biologists, rejects use-inheritance as a cause of variation, and is driven to the conclusion that variations arise spontaneously. While no doubt the whole tendency of recent biological research is in favour of this rejection of use-inheritance as a cause of variation, there still remains the necessity for some attempt to trace the origin of this so-called and apparent spontaneity.

Weismann has sought in germinal selection for the source of germinal variation, and whatever may be the effect of nutrition and relative position on the growing and multiplying germ-plasm, it seems certain that some competition, some sort of struggle for existence, does take place among the heredity-bearing particles of nuclear material, during and after the commingling of the male and female elements, at the time of the fertilisation of the ovum.

The origin and meaning of bi-parental parentage is interpreted by different observers in directly opposite ways, thus affording evidence of the necessity for further study and research in this field.

Another heredity problem pressing for solution lies in the application of Mendelian principles to the facts of human breeding. There are indeed certain phenomena observed in experimental breeding in animals which suggest that the Mendelian theory of Dominance and Recessivity as applied to inherited characters in any hybrid should have a more relative and less absolute significance.

In so far as the new science of eugenics proposes to interfere with the action of natural selection in the course of human evolution, and to substitute for it artificial selection by human agency, we must remember that such interference may operate at either end of the human scale, namely, by promoting the union of individuals above the average, or by preventing the union of individuals below the average of a certain standard of fitness or "Eu-ness."

The former method will probably come about only gradually, on a small scale, in a remote future, by the voluntary co-operation of individuals having definite ends in view; while the latter methods will probably come into operation much sooner, on a larger scale, as a compulsory measure, as soon as public opinion (that is, social consciousness) is sufficiently informed as to the facts of race deterioration, and sufficiently aroused about their importance to initiate social or State action calculated to arrest the evil. It will be a matter of international interest to see which community or nation will be the first to take enlightened steps in dealing with this matter.

In this eugenic problem, this attempt to produce human beings of a certain standard of excellence, it is very essential to bear in mind two groups of facts: (1) Those relating to the difference in the mode of operation of artificial as opposed to natural selection, and (2) those relating to the nature of the future environment which the artificially selected individuals are to fit.

Thus in the action of natural selection, that obscure influence known as "correlation of characters" has played an important part; in artificial selection, on the other hand, owing to man's ignorance of the extent and working of correlation between various characters, there is a danger that the actual result in the individual produced may not conform to the standard expected or desired. Thus robustness of bodily health may be correlated with a brain development of only average, or less than average standard; while a lower development in certain directions, such as power of resistance to certain diseases, *e.g.*, consumption, may be correlated with a high degree of brain power.

So, too, in the matter of surroundings, we must remember that the environment of the future will be one characterised by nerve activity. The struggle will be with his fellow-man, and with all the artificial conditions of existence with which modern man surrounds himself, and not so much with nature and natural conditions.

It will be an environment moulded by the peculiar activities due to the use-acquirements of the generation of men living at the time.

A consideration of this latter fact shows how great a part this use-acquirement plays in evolution, and how the moulding of the environment is only second in importance to the moulding of the race.

It also shows how important it is for man that, since he cannot transmit to offspring the acquired characters, he should be able to transmit in increasing degree the power to acquire them. This, indeed, is the eugenic problem of the future, the production in larger numbers of individuals of greater capacity of acquirement, especially of mental characteristics of a valuable kind.

The difficulty is that the two things, capacity and acquirement, are not the same; the union of individuals of great acquirement them-

selves, does not by any means always result in the production of offspring with an enhanced capacity for acquiring, while the union of the collateral relations of such individuals having less acquirement, but equal capacity for acquiring, will often give a better result.

There is also another disturbing factor arising out of man's inherent capacity for use-acquirement which is constantly reacting on the environment of the time.

Man is gradually developing the power of overcoming disease by serum-therapeutic and organo-therapeutic methods. He is learning to eliminate disease by acting on the seed, instead of imitating natural selection and acting on the soil.

By thus calling to his aid use-acquirements and killing the seed or germ of the disease, he is no longer at the mercy of natural selection and dependant on those inborn traits of resistance and unsuitability of soil which alone counted in the older struggle. By personal hygiene, by sanitation, he is attacking the vitality and virulence of the infection or the seed of disease in its life history outside the human body.

Let us see for a moment what this means in relation to our present problem.

Take for instance the disease Consumption, a tendency to which, as I mentioned previously, is often correlated in the individual with intellectual and moral excellence valuable to the race. Suppose, as seems very probable, that in the near future, as in the case of other diseases, man should learn to conquer this disease by destroying the seed. Under the old *regime* the safety of the race required the weeding out of all susceptible individuals by the stern process of natural selection, while under the newer environment this tubercle-resisting power will have lost its selection value.

Hence our ignorance of the nature of the environment of the next generation hampers our knowledge of what sort of individuals are best fitted to live in it.

The fancier, the animal breeder, eliminates the natural environment and sets before his mind certain definite features at which he aims. Even here his ignorance of the action of correlation often compels him to accept a compromise, in some cases a travesty, as the result.

How much more difficult in the breeding of men where the effects of correlation are just as obscure, the environment changing, and the characters desired are the unweighable and unmeasurable qualities of intellectual and moral capacity.

For these and many other reasons it seems to me it would be best to begin at the lower end of the scale, and, setting aside resistance to disease, to limit our efforts at first to checking the manufacture of criminal and feeble-minded persons. Bearing in mind the nature of our modern environment, and the absolute necessity of all characters

which make for intellectual and moral efficiency, we should at any rate prevent the union of individuals and the production of offspring hopelessly deficient in such traits.

We should thus be spared the error of eliminating individuals deficient in resisting power to certain diseases, but otherwise valuable to the race, whereas in the new environment the supposed error in their constitution will have already lost its selection value. At the same time we should be purging the race of the hopelessly unfit, of sufferers from nerve diseases and developed mental errors for which there can be no cure. We should, in fact, be spared the error of trying to eradicate the weeds of disease by altering the constitution of the soil, when a readier method has been discovered of destroying the seed.

DR. ARCHDALL REID'S REPLY.

Dr. Robert Jones declares that he has "heard Dr. Reid assert that the environment plays no part in the 'acquisition and transmission' of physical characters." I am sure he is mistaken. One generally knows one's own meaning, even if one fails to convey it to others. Absolutely, I can gather no meaning from the words attributed to me—between inverted commas too! How can the environment play no part in the acquisition of physical characters? How can it play any part in their transmission? Dr. Jones thinks that because desert plants have one kind of appearance and Alpine plants another that they have transmitted their acquirements. But the proof? I say in my paper that "Practically speaking, every negro suffers for a prolonged period from malaria, and many perish of it," but that this elimination of the unfit has resulted in an evolution which endows the race with a power of resisting malaria superior to that possessed, for example, by Englishmen. Dr. Jones interprets these words as implying that negroes have *absolute* congenital *immunity*. Koch found that, speaking practically, all negro children suffer from malaria, and some die of it, and that some adults suffer also—just as people in England suffer from measles. He concluded that immunity against malaria, like that against

measles, was acquired, not inborn—wherein he was very right. But because adult negroes, coming from non-malarious countries, suffered severely at first, he concluded that negroes had no greater power of resisting malaria than white men. Like Dr. Jones, he confused relative resisting power with absolute immunity. As a fact, negroes have powers much greater than white men of recovering from malaria and subsequently resisting fresh illness—of becoming “seasoned” to the disease, in the same sense that we in England become seasoned by illness to measles. This has been abundantly proved in the case of the West India troops, the privates of which are soon able to lead healthy lives on the Coast, whereas the white officers continue to suffer year after year. Native communities flourish in the heart of the West African forest. Does Dr. Jones really believe that an English community would persist under similar conditions? He may remember, perhaps, the fate of the British colony in Darien. Most people are aware of the practical impossibility of rearing an English family in a very malarious country, such as the West Coast. The effect on African negroes of consumption, a disease of which they have little racial experience, may be judged from the following: “It is a remarkable fact,” says Bartolacci in his work on Ceylon, “that of 9000 Kaffirs (negroes from the East Coast of Africa) who had been imported at various times by the Dutch Government into Ceylon, and had been drafted into regiments, scarcely a trace of their descendants remains; and they would certainly not be recognised at all among the present population of the island. In the years 1810 and 1813 the British Government imported three or four thousand negroes from Mozambique into Ceylon to form into regiments; of these in December, 1820, there were left just 440, including male descendants.” It is a fact quite undisputed, and supported by any amount of statistical evidence collected by Departments of Public Health, that natives of the western hemisphere cannot reside in the neighbourhood of white men’s towns, owing to the enormous mortality from consumption and other imported diseases which then afflicts them. Dr. Jones says that *pellagra*

acquired by the parent renders degenerate offspring who have not the disease. I do not know the nature of his evidence, but I do know that exactly the same has been alleged of our domestic diseases, and that the evidence has invariably broken down—has been shown always to involve a confusion between *post* and *propter hoc*. It seems impossible to persuade my medical opponents to deal with the fact that strong and robust races inhabit such places as the West Coast of Africa and the crowded districts of China where disease has been prevalent for thousands of years. No doubt disease is not a respecter of geniuses, but it is not clear how that bears on the matter in hand, unless Dr. Jones believes that it is particularly destructive of them and that I advocate the wilful spreading of disease. Really, I do nothing of the kind. I heartily agree with him that we should try to banish all evil conditions—disease, intemperance, slums, and the like. But when we are unable to banish them I believe an afflicted race undergoes protective evolution. Dr. Jones thinks it tends to deteriorate helplessly and hopelessly. I think that parental disease seldom injures offspring. He thinks it almost always does. *He* terms *my* theories fatalistic. Dr. Jones remarks that I regard systematic instruction in the laws of heredity as a panacea for certain evils, and exclaims “What are these” laws? But I had just devoted a long paper to an attempt to demonstrate them. He has not the right to ask *me* that question until he has shown that my facts or inferences are invalid—a thing which he has hardly even attempted.

Dr. Schofield’s ideas are undeniably interesting. They were discussed by Darwin in his earlier works, and I believe command considerable support amongst ladies who certainly ought to know. I spent some years in the Pacific. It was a matter of common knowledge that half-caste births tended to follow the visits of British ships. It would be pleasant to substitute for the scandalous hypothesis locally prevalent a belief that they were due to the mental impression created by our handsome young sailors. The length of time during which the mental impression acted appeared, however, to be

strictly limited—an indication perhaps of the fickleness of the female mind.

Observe the subtlety of the arguments by which Dr. Mercier proves that selection, which nature has exercised for millions, and breeders and cultivators for thousands of years, and which has rendered so many races resistant to so many diseases, is quite impossible. He says he is an old antagonist. But I hope the antagonism is only temporary, and will end when he discovers that I really mean what I say, and not what he says that I mean. I never meet him but I am driven to despair. Most laboriously I strive to make my meaning clear, and invariably I find that the ideas attributed to me bear the same relation to reality as a scarecrow to a man. Certainly I do not admit, for example, that a "great resisting power" when it is "an acquired quality may be inherited." Nor did I ever so much as hint that slums would produce "the finest race." I said only that they would produce a race resistant to slums. I hope he will be very successful in his experiments on gourds, and so convert a sceptical biological world.

Dr. Saleeby characterises the "compulsory sterilisation of the unfit as the most ludicrously inept of serious proposals." I daresay he is right, but why attribute it to me? He has been an indulgent reviewer of my work, and really should know better.

Mr. Bernard is quite right in objecting to the title *THE* Biological Foundations of Sociology. There are many reasons besides those to which I was obliged to limit myself why sociology should found itself on a preliminary study of human biology. Certainly, also, my treatment of the subject is not only "narrow" and "doctrinaire" but dogmatic and crude. I feel all that much more keenly than Mr. Bernard can. Lack of space left me no alternative. But really I do not see why we should make such a mystery about the "cause of spontaneous variations." By the word spontaneous we mean only that the source of the variations lies in the germ-plasm, not in the environment. The fertilised ovum has two kinds of cell-descendants, the body or somatic cells and the

germ cells. The somatic descendants vary spontaneously amongst themselves, some becoming skin, others bone, and others nerve-cells, and so forth. We make no mystery about that, but suppose that evolution has provided for these variations. Why need we insist on another cause for the spontaneous variations of germ cells? If they did not vary, the race could not adapt itself to the environment, and so would perish. Presumably evolution, by eliminating families that did not vary spontaneously, has provided for them also—has provided that the germ cells of all species shall vary all round the specific mean like bullet marks round a bull's-eye, and so afford materials for natural selection.

Dr. Slaughter says, "the pity is that we are compelled to use argument and speculation instead of exact knowledge. . . . I am compelled to believe that Weismannism is useful only when taken for granted . . . too great effort to pigeon-hole inherited and non-inherited characters leads one to regard them as juxtaposed things rather than as modifications. . . . The next important step in eugenic investigation will be the determination, in terms of accurate measurement, of hereditary influences on mental function . . . when the instrumentalities of the psychological laboratory are combined with modern methods in statistics, the solution of the problem will be not only possible but at hand."

Dr. Slaughter shows the need of exact thought and its corollary exact definition. These must precede and succeed measurement, however exact, or we may accomplish the not unusual feat of comparing four pounds of butter to four o'clock. He and I alike speak of "inherited," "inborn," and "acquired." The terms are in everyday use, and one employs them when in a hurry to save time and avoid circumlocution and argument. But they are very wrong, and the cause of endless confusion. No character is more inborn or inherited than any other. In the germ-cell is the germ-plasm. In the germ-plasm are the hereditary tendencies which direct the development of the individual. These are awakened by stimuli, of which the chief are nutriment, use, and injury. The first stimulus that acts is nutriment. Speaking practically,

the human being develops up to the time of birth wholly under its influence. Subsequently, some of his structures continue to so develop (*e.g.*, his external ears and his hair, which grow though he never "uses" them), but for most of them nutriment, though it still supplies the materials for growth, no longer supplies the stimulus. Use takes up the task. Thus his muscles, limbs, and brain now develop only because they are used. Lastly, if he damages one of his structures (*e.g.*, his nose by a cut), injury supplies the stimulus for further growth, and the part is healed by a scar. For millions of years evolution has so fashioned the race, has so dealt with the germ-plasm, that the individual responds by growth in fixed and definite ways to these stimuli; and, for that reason, the germ of a rabbit develops into a rabbit, and that of a man into a man. When biologists speak of an inborn character, they always mean one which has developed under the influence of nutrition; whereas, by an acquired character, they mean one which has developed under the influence of use or injury. Formerly it was believed that parental "acquirements" were "transmissible" to offspring; in other words it was maintained in effect that a character (*e.g.*, scar) which the parent was able to acquire in a certain way (as a reaction to injury) because a long course of evolution had rendered such acquisition possible to the members of his race, is reproduced by the child in a different category of characters, and in a way (as a reaction to nutriment) that no member of his race had ever acquired it before, and with which therefore evolution had nothing to do. An actual miracle was supposed to happen, the miraculous nature of which was concealed under a misuse of terms. Since under fit conditions a scar on the hand arises under the stimulus of injury, just as inevitably as the hand arises under the stimulus of nutriment, it is difficult to understand how the latter can be, in any true sense, more inborn and inherited than the former. Both have their roots equally in the germ-plasm. The hand seems—but only seems—more inborn because, since the stimulus of nutriment is always applied, it always arises in the normal individual; whereas, since the child is seldom

injured in precisely the same way as the parent, their scars are seldom alike. Were they injured in the same way the scars would be just as alike, just as certainly reproduced, just as apparently "inherited" as the hand.

I thank Dr. Ashby and Mr. Bond for their more than kind comments on my lecture. They bring into prominence much with which I was unable to deal.

**A PRACTICABLE EUGENIC
SUGGESTION**

A PRACTICABLE EUGENIC SUGGESTION.

By W. McDougall, M.A., M.B.

Read before a Meeting of the Sociological Society, at the School of Economics and Political Science (University of London), Clare Market, W.C., on February 21st, 1906, Dr. F. W. Morr, F.R.S., in the Chair.

It may be assumed that the term Eugenics, as introduced and used by Mr. Francis Galton, is familiar to all members of this Society. I may also assume that we should all agree in wishing to promote any measure, any change of custom or institution, which could be clearly shewn to be eugenic in tendency and to involve no injustice, no interference with personal liberty, and no risks of weakening or destroying any of the pillars of our social system. The suggestion I wish to put before you is the desirability of a change of custom which would fulfil those conditions. And the bearing of my remarks may be clearer if I at once define this proposed change of custom.

First, let me remind you of a fact, of the first importance in this connection, which the layman is apt to ignore or forget. It is that, in the opinion of almost all who have made a thorough study of the facts of heredity, acquired characters are not in any degree transmitted from parent to offspring; that is to say, they believe that no improvement of the mental, moral or physical capacities of individuals due to training, favourable environment or efforts after self-

improvement can in any degree be transmitted to their offspring. This opinion of the biologists is most discouraging to all who are concerned for the progress and future welfare of mankind, but it is so well founded that we are not justified in relying upon education and improvement of the conditions of life for the improvement of the innate constitution of the population of this or any country, or even for the prevention of its deterioration.

It follows from this conclusion, that, apart from immigration and emigration, the innate constitution of any population can only be affected for good or ill by influences that affect the rates of reproduction of the different classes and elements of the population. Such influences may with advantage be roughly classified in four groups according as they affect the rate of reproduction of (1) the worst elements of the population, all those grossly and innately deficient in intellectual, moral or physical qualities; (2) all, or a large proportion of the individuals, below the average of civic worth*; (3) all, or a large proportion of the individuals, of more than average civic worth; (4) the finest individuals, those of the highest civic worth. Influences of each of these four groups we may call *positive* or *negative* according as they *favour* or tend to *diminish* the rate of reproduction of individuals of these classes. All eugenic influences are thus negative influences of the first or second class, or positive influences of the third or fourth class.

From the time that Darwin's doctrine of evolution through natural selection became generally and almost suddenly accepted, there have not been wanting advocates of negative measures of the first class, measures for eliminating the worst elements of the population. Sequestration, sterilisation, the guillotine, infanticide, strict prohibition of marriage, these and other drastic measures have had their ardent advocates, while positive eugenic suggestions have been generally

* I use Mr. Galton's convenient phrase "civic worth" to denote the combination of intellectual, moral and physical qualities with which any individual is innately endowed. In this combination, deficiency in one or two of these respects may of course be compensated for by excellence in regard to the other quality or qualities.

received with indifference, or with ridicule and "cold water" of every kind. And in spite of the teaching of Plato, of Mr. Galton and of Professor Karl Pearson, this continues to be the case. This state of affairs implies the prevalence of a false estimate of the relative importance of the negative and positive eugenic influences, a false estimate which arises from an imperfect comprehension of the principles of heredity and evolution, an ignorance of the principal conditions of social welfare and progress, and a blindness to the state of affairs obtaining in this country at the present time. For I believe it can be proved beyond question, not only that negative measures of the first kind, measures for eliminating the unfit, are difficult to apply without actual injustice and risk of defeating the end sought after,* but that they would be, if successfully applied, of insignificant importance, relatively to the influence of the third and fourth groups; those which affect the reproduction of the better elements, and especially those of the fourth group. I believe that the relative importance of these four groups of influences is very different, and that it is in the inverse order of their statement above, *i.e.*, elimination of the grossly unfit is the least important, increase of rate of reproduction of the most fit is the first in importance. My suggestion is based on this opinion, which I shall shortly attempt to justify. But first let me state the nature of the suggestion.

There are in this country certain large classes of persons selected from among the whole population by tests which ensure that in the main these persons have a civic worth above the average. My suggestion is that we should endeavour to introduce the custom of remunerating the services of every person belonging to any such selected class, not, as

* *E.g.*, It is held by Mr. Edward Carpenter and others that criminals are not in the main degenerate persons whom we should seek to eliminate from the population, but that they are rather persons to be regarded as of original minds who are incapacitated by their unlikeness to the average mental type for life under the system of laws and conventions which has been evolved by and in conformity with the predominant mental type. It is clear that, if there be any truth in this view, to sterilise in any way our criminal stocks would be to eliminate our most variable stocks, and since variability is the prime condition of all evolution, the most variable stocks of any population must be regarded as of the highest value.

at present, according to some rigid scale, but according to a sliding scale such that his income shall be larger in proportion to the number of his living offspring.

The agencies by which these persons are selected are constantly becoming more efficient and more wide-reaching, but they probably operate in the main as agencies of degradation of the population, through making against the rate of reproduction of the individuals selected by them. A change of custom of the kind suggested would convert them to effective eugenic agencies favouring very greatly the reproduction of the selected classes, classes which comprise a large proportion of all the individuals of more than average civic worth. But the main contention of this paper is that the suggested change of custom may be expected to favour very greatly the reproduction of the individuals and classes of *highest civic worth*, and that if it should have this effect it would be a eugenic influence of vastly greater importance than the negative measures so commonly advocated.

This contention is based upon the three following propositions:—(1) That some men are of very much greater civic worth than the average, and that the continued strength, prosperity, and progress of this or any nation depends upon the continuance of a good supply of these persons of high civic worth; (2) that mental and moral qualities are hereditary in much the same sense and degree as physical characters; that, therefore, the superior elements of the population in each generation, and especially the persons of highest civic worth on whom the continued welfare of the nation is mainly dependent, will be found in far larger proportions among the progeny of the superior individuals of the preceding generations than among the progeny of the mass of persons of average qualities; (3) that in this country at the present time, the fertility of the superior classes, or, better, of the individuals of higher civic worth, is low relatively to that of the mediocre mass of the population, and still lower relatively to their maximal natural fertility, and that this relative infertility is mainly due to artificial and removable causes.

I believe that these three propositions cannot seriously be disputed. Nevertheless, it is perhaps worth while to say something in support of them; and in the brief time at my disposal, the most effective way of doing this is perhaps to quote the opinions and conclusions of the highest authorities. Mr. W. H. Mallock, in his book "Aristocracy and Evolution," has brilliantly exposed the fallacies and inconsistencies of those who, like Herbert Spencer, profess to reject the "great man theory" of social evolution, and has displayed in a convincing manner the social importance of the exceptionally gifted individuals. A great number of eminent thinkers, among whom are Comte, Carlyle, Mill, Buckle, Bagehot, and Mr. Francis Galton (to name only a few), have concurred in maintaining that the progress of civilisation has mainly resulted from the ideas given to the world by exceptionally gifted men—that, as Mr. Mallock has it, "the human race progresses because and when the strongest human powers and the highest human faculties lead it; such powers and faculties are embodied in and monopolised by a minority of exceptional men; these men enable the majority to progress." They maintain, in short, that the mark, the essence and the cause of the progress of mankind, is, in the words of Mill, the successful exercise of "the speculative faculties;" or, as we may say in the case of any one nation, the state of its living knowledge.*

Following Mr. Galton, we may call *illustrious* the great men who give to the world ideas of supreme importance. Now, while it is true that the progress of mankind in general is in very large part due to the activities

* The most direct evidence in support of this proposition is afforded by the extensive observations of the distinguished French psychologist, M. Gustave le Bon, upon the skull-capacities of the different races of men. He has shewn that, while the average skull-capacity is approximately the same for some of the progressive and some of the unprogressive races of men, any large group of skulls derived from one of the higher progressive races is distinguished from any similar group derived from one of the lower and unprogressive races of mankind by the presence of a certain number of skulls of exceptionally great capacity. M. le Bon holds that these correspond in the main to the individuals of exceptionally great abilities, whose appearance from time to time among certain races has sufficed in his opinion to give them their progressive character and to raise them in the scale of civilisation far above all races which are incapable of producing such individuals. (cf. "Lois psychologiques de l'évolution des peuples," pp. 41 and 151). In a paper recently read

of these illustrious men, it must be admitted that for a space of years, probably for some generations even, a well-organised nation might continue to be vigorous and healthy and to hold a good place in the world, though it should fail to bring to maturity any man of illustrious powers. But this would be possible only if it continued to produce in considerable numbers personalities of what we may call the second order of capacity; men who, though they are not endowed like those others, like Newton or Wordsworth or Bentham or Darwin, with powers that enable them to set going new movements in the world of thought or action, are yet full of intellectual and moral energy of a high order; men of the order of ability that we may roughly define by imagining grouped together some fifty of the most capable and efficient members of the houses of parliament, and the corresponding fifty from each of the great public services and from each of the great professions and callings. Such a group would correspond to those whom Mr. Galton classes as eminent men; and of such eminent men, and of younger men whose capacities are such as to raise them to eminence in middle age, he reckons that this country can boast about two thousand at the present time. The sum of the services rendered to their country by these eminent men cannot be reckoned inferior to the services of the illustrious men, and indeed they should perhaps be reckoned of more importance; for the ideas created by the men of supreme powers are given to the whole world, or to all that part of the world that is capable of appreciating them, and so advantage but little in the international struggle the country that gives them birth. But in the absence in any country of a fair supply of the

before the Royal Society, Professor Karl Pearson concludes that there is no sufficient ground for believing in a correlation of high mental ability with large size of the skull. This conclusion is based on the fact that he finds no marked difference in the average size of the head in the case of a large number of honours and of poll men of the University of Cambridge. I venture to think that no observant man, who has had the advantage of being a member of a large college at Cambridge and of having a large acquaintance among all classes of undergraduates, will accept this conclusion. Such a man will know that the majority of honours men are placed in the third class in the tripos lists, and that a place in the third class is hardly beyond the reach of any fairly studious man of very mediocre abilities. He will know also that very many undergraduates of great abilities never present themselves at the honours examinations.

minds of the second order, the great gifts of the world's illustrious men must remain ineffective in that country; for it is they who mediate between these moving spirits and the great mass of mediocre men, interpreting and teaching to the latter the ideas originated by the former; and it is they who maintain by their thoughts and conduct the highest traditions of the national life. If we try to imagine all, or a considerable proportion, of the men of this second order simultaneously removed by death, we may realise something of their importance; for it is clear that in the course of a few years from that event the nation would be reduced to a state of moral, intellectual, æsthetic and social chaos. It may be laid down in general terms that, while on the one hand, the world's illustrious men are the source and cause of the progress of mankind in general, in all that is worthy of the name; on the other hand the continued prosperity, stability and vigour of any nation is chiefly dependent upon the production in sufficient numbers of men of the second order of capacity.

I shall presently draw attention to one or two striking illustrations of this truth. But, first, I will ask you to consider my second proposition, namely, that mental qualities are transmitted from parents to offspring in much the same sense and degree as physical characters; and that therefore the persons of eminent civic worth or capacities of each generation are produced chiefly by parents of civic worth decidedly above the average. It is unfortunate that for the apprehension of this truth there is needed a far from common power of grasping intellectually large and varied groups of facts; and the average man, when confronted with this proposition, at once points to undistinguished sons of great men and to great men born of obscure and humble parents, and considers that in so doing he confutes it. He might equally well confute the evidence for the transmission of bodily characters by pointing to instances of brown foals produced by grey mares, and of tall sons born to fathers of medium stature. But here again my best course is to quote the conclusions of the highest authorities. In a paper read before the Royal Society, Professor Karl Pearson summarises the results of

a recent statistical investigation of the mental faculties of a very large number of school children; his main conclusion is "that the mental characters in man are inherited in precisely the same manner as the physical." But our greatest authority on all such questions is Mr. Galton, who for many years has devoted his great talents to the study of them. His conclusions received their most definite expression in the Huxley Memorial Lecture of 1901, entitled "The Possible Improvement of the Human Breed under the Existing Conditions of Law and Sentiment." Mr. Galton imagines the whole population of the United Kingdom divided according to their degrees of civic worth into a series of ten classes, the classes being so defined that the difference between the average civic worth of any two adjoining classes is equal to that between any other two, *i.e.*, the ten classes form a scale of civic worth rising by steps of equal value from the lowest to the highest. The two classes occupying the mid position in this scale together comprise one half the population, and in numbers, and probably in civic worth, correspond fairly well to Mr. Charles Booth's class of artisans earning from twenty-two to thirty shillings a week. The five classes of individuals of more than average civic worth, Mr. Galton denotes by the letters R, S, T, U, and V. These five comprise about half the whole population, and of them, the lowest, R, the class of persons just above the average, comprises about one quarter of the total population; S comprises about one-sixth, while T, U, and V, the three highest classes, together comprise about one-tenth only of the whole.

Mr. Galton shews reason to believe that, if all these classes were equally prolific, the V, or highest, class, would be three times as rich in V-class offspring as the U class, $11\frac{1}{2}$ times as rich as the T class, 55 times as rich as the S class, and 143 times as rich as the R class; so that in spite of the smallness of its numbers, class V would be *absolutely* many times as rich in V-class offspring as class R, together with all the five classes below the average; and further, that the classes T, U, and V of any one generation, comprising together only about one-tenth of the whole population, might be

expected to produce four-fifths of all the V-class individuals of the succeeding generation.

If we carry the division one step further and split off from the V class a still higher class, W, the number of persons of this W class corresponds fairly with the rough estimate of the number of persons of eminent civic worth; and it may be supposed to consist of all such persons, as well as of the still more highly endowed and rare spirits whom we have called illustrious persons. The same considerations then apply to the parentage of the W class and shew that nearly all of them may be expected to come from classes T, U, V, and W, the classes well above the average in civic worth. It is obvious then, that if Mr. Galton's reasoning is approximately and even only very roughly correct, any cause tending to diminish the rate of reproduction of these classes, T, U, and V, and to a less extent, that of all the other classes above the average, namely R and S, any such cause must, in proportion as it is effective, seriously diminish the number of persons of eminent civic worth born to each generation.

Here it is necessary to point out that the argument does not assume that the classes of Mr. Galton's scale correspond strictly to any of the commonly recognised social grades. Our social grades are of course based largely on wealth or income; and as wealth is hereditary, it follows that many persons continue to enjoy a far higher social standing than is warranted by their civic worth and that the higher social grades are therefore very mixed, *i.e.*, contain large numbers of persons who in the scale of civic worth belong to the mediocre or to some lower class.

Nevertheless, it remains true that the higher social classes, especially perhaps the class which we roughly define as the upper middle-class, and which comprises most of the intellectual workers of the country—the members of the higher professions—is the product of a long-continued process of selection. For many generations, the ablest members of the working classes and lower middle-class have been able to emerge from their class and to establish themselves and their families in a higher social class; and conversely, though

perhaps to a less extent, the least capable members of the higher social classes have been falling back to lower social grades. And it may be claimed, I think, that we have now well-nigh perfected the social ladder. Free and compulsory education; abundant, perhaps too abundant, scholarships; the breaking down of all rigid social barriers; the general tendency to seek and promote capacity wherever it may be found, and even a certain sentimental tendency to exaggerate the merits of the man who shews a tendency to rise: all these together ensure that now, and in the future, ability, or rather civic worth, can find its opportunity and its appropriate social level; and they justify us in believing that it seldom remains hidden. This is true in spite of the fact that birth and wealth may, and often do, favour the success of able men born in the upper classes.

We may believe then that now and in the future the individuals whose innate capacities render them members of classes T, U, and V will be found occupying approximately such positions in society as their superior merits entitle them to claim. These persons constitute, as we have seen, about one-tenth of the population, and we may fairly regard them as an emerged tenth, a tenth emerged in the past or emerging now from the mediocre mass, through merit.*

My third proposition is that these upper classes, T, U, and V, which, if equally fertile with the remaining classes, would produce many more persons of eminent civic worth than all these remaining classes taken together, are at the present time relatively infertile, and that the principal causes of this infertility are artificial and removable.

These principal causes are two; namely, late marriage and voluntary restriction of the size of the family after marriage. The custom of late marriage tends to diminish

* Mr. Galton (in "Hereditary Genius") and Professor Karl Pearson have expressed similar opinions very decidedly. The latter writes "The upper middle classes are the result of a severe selection of capacity," and again "It is the realisation of these points, that not all but the bulk of the abler and more capable stocks have drifted into the upper middle classes, and that ability is inherited; which makes, in my opinion, the decreasing relative fertility of these classes a matter of the most serious national importance." ("National Life from the Standpoint of Science." Appendix on National Deterioration, p. 77.)

in two ways the rate of reproduction of any class among whom it obtains. If in two equally numerous classes an equal number of children is produced on the average by each pair of parents, but the one class marries on the average at the age of twenty-five years, while the other class postpones marriage to the age of thirty-five years, then the generations of the former class will succeed one another so much more rapidly than those of the latter class, that after a few generations the numbers of the former will far exceed those of the latter in spite of their equal fertility. But, secondly, the offspring of late marriages will, other things being the same, be less numerous on the average than the offspring of early marriages. That voluntary restriction of the number of offspring is peculiarly and increasingly common among the well-educated and intellectual classes will, I think, be generally admitted, although it is of course impossible to produce statistics bearing on this question and to separate the effects of voluntary from a possible natural infertility.*

These two influences, late marriage and restriction of the family, are at a maximum among just those members of the upper social strata who constitute our classes T, U, and V, the emerged tenth. For these persons are to be found chiefly leading the strenuous life in the higher intellectual professions, and especially in those callings to which access is gained only by success in intellectual competition. And the more ambitious a man is, the more he is engrossed in his work; and the more highly cultivated and naturally keen are his tastes and intellect, the more likely is he to remain a bachelor, or to marry late and to restrict the number of his children when married. On the other hand, many of the social changes which have been recently effected or are now going on in this country directly favour the reproduction of the inferior classes. Such are the low price of bread and sugar, the tendency to throw taxation chiefly on the well-to-do classes, enormous charities, free medical and surgical

* The fact that there is some ground for suspecting that the intellectual classes are naturally less fertile than the others, does but add to the urgency of the need for the reform of custom suggested in this paper.

treatment, free education, free feeding of school-children, free milk-depôts, the building of dwellings for the working classes out of public funds, and lastly the abolition of the excessive infant mortality among the lowest classes. This last change, which, as the Huddersfield experiment shews, is easy of accomplishment, is likely to be completely effected in the next few years, and we shall then have abolished the one factor which in any important degree at present tends to redress the balance between the rates of reproduction of the superior and the inferior classes.

The total effects of these influences are capable of being exhibited statistically. Professor Pearson writes: "The birth-rate of the abler and more intellectual classes in this country is falling, relatively to that of the poorer stocks. . . . Statistics are forthcoming, and will be shortly published, to shew that the families of the intellectual classes are smaller now, very sensibly smaller, than they were in the same classes fifty years ago; that the same statement is true of the abler and more capable working and artisan classes; but that as you go down in the social grade the reduction in size of families is less marked."*

At this point it seems desirable to emphasise the fact that the effects of different rates of reproduction of different classes must be cumulative in a surprising degree, if the difference is maintained through several generations. Professor Pearson has dwelt upon this point in his essays upon "The Chances of Death." He points out that if in any community one group of people having a fertility above the average breeds in from generation to generation, *i.e.*, if its members intermarry only or chiefly with members of the same group, then this group will tend rapidly to replace the other groups of the population; so that, after a surprisingly brief period of time, almost the whole population will be descended from the most fertile group. And he shews that changes of this sort may well be going on in this country, because fifty per

* Letter to the *Times* of August 25, 1905, reprinted in volume on "National Life from the Standpoint of Science."

cent. of the people of each generation are produced by about one-fifth only of the adults of the preceding generation. If then the classes of highest civic worth reproduced themselves equally or more rapidly than the mediocre classes, there would soon be established a breed capable of producing in each generation a very large number of persons of eminent abilities, because not only would these higher classes be continually recruited by the most able offspring of the mediocre classes, but the least able and worthy of the offspring of the highest classes would constantly fall back to become members of the mediocre classes. On the other hand, when—as is almost certainly the case at the present time in this country—the classes of highest worth are persistently less fertile than the mediocre classes, then they must be recruited on a far greater scale by persons drawn from those mediocre classes, on such a scale that the average worth of the highest classes may be dragged down to a lower level. There is then always the probability that in the course of a few generations any strains of exceptional ability, such as have undoubtedly appeared from time to time, will, through intermarriage with much inferior strains regress markedly towards the mediocre type and become in fact swamped or extinguished, ceasing to produce any notable proportion of eminent men, and serving merely to raise in an infinitesimal degree the general average of ability throughout the nation.

I have now indicated the principal lines of reasoning which justify the statement with which I set out; namely, that, at the present time in this country, it is of far greater national importance to promote, if possible, a higher rate of reproduction of certain superior classes than to provide for the elimination of the unfit. The considerations advanced justify us in believing that, to secure by the latter method benefits to the national breed at all comparable to the benefits which may be confidently expected from a successful effort of the former kind, we should have to immolate or isolate vast numbers of the least desirable specimens—numbers so large that the population of the country would be seriously diminished—so that from the point of view of the national

power and prosperity in the present, the cure might well prove worse than the disease. But, unfortunately, conventional religious teaching and the classical education of our public schools too often conspire to deprive the Englishman of any effective belief in natural causation; so that, except in the simplest cases of physical causation, he is not accustomed to seek, or to believe in the existence of, natural causes. Especially common is this attitude towards all large processes in which hidden causes work through long periods of time; and it is no exaggeration to say that for many, perhaps most, men historical events merely happen, and history is, and should be, the mere chronicle of such happenings. These men make use of foggy phrases; such as, "the opportunity always brings its great man," they believe that the supply of able men in our country is inexhaustible,* and they would regard any action of the State directed towards bettering the mode of reproduction of the population as necessarily futile, because they are incapable of grasping the fact that the condition, the character and the institutions of a people result from the slow workings of great natural causes. Most minds of this class are perhaps quite beyond the reach of argument in such matters; nevertheless, it may be worth while to draw attention once more to certain cases in which the operation of natural causes has wrought unmistakeable effects upon the constitution of great populations.† The history of Spain affords us the most striking of such instances in modern times. A population compounded from the finest stocks that the world has known, occupying a country that forms as it were the centre of gravity of the western world, and enjoying

* A good example of the neglect to recognise and to take into account the strictly limited number of persons of high abilities produced by each generation of the population of this or any other country, is afforded by the current discussions of the causes of the backward state of education in this country. No one seems to have connected it with the fact that throughout the period of rapid educational progress in other countries we have sent out every year to India and to other parts of the Empire, a large number of the ablest of the young men turned out by our universities, most of whom in the absence of the opportunities offered by the Indian and Colonial appointments would have joined the ranks of the schoolmasters.

† In this connection, I would draw the attention of members of this Society to the very interesting work of M. De Lapouge, "*Les Selections Sociales*."

a climate under which humanity might well attain its highest expression, raised Spain in the 16th century to a supreme position of power and magnificence. At the present time she is a third-rate power, contributing little to the advancement of civilisation and depending very largely for her industrial achievements upon the initiative and energy of foreigners.

This great national decline, which is not merely relative to other nations but an absolute decline, is due to no untoward change of the climatic conditions, to no devastation of the country by plague or famine or war. Nor is it due to any marked falling off of the average Spaniard in those manly qualities which enabled his race to win the mastery of the world. All observers seem to be agreed that the great mass of the Spaniards is sound and healthy and retains its admirable qualities, being virile, proud and of a fair level of general capacity. The great decline of Spain is not due to any great falling off in the quality of the average Spaniard, nor is it due in the main, as Buckle thought, to the spirit of superstition and submission to authority fostered by the Roman Catholic priesthood; it is due rather to an intellectual stagnation resulting from the insufficiency of the supply of men of the highest civic worth, of men of eminent and illustrious abilities. As to the causes of this insufficiency there can be no doubt. They have been pointed out by Mr. Galton, but still more completely perhaps by the distinguished French psychologist, M. A. Fouillée.* After pointing out that the population of Spain fell from about forty millions in the Roman period to about six millions at the end of the seventeenth century, he shews that this depletion chiefly involved the most able and intellectual classes and all individuals capable of original and independent thought and action. On the one hand, the Church attracted to her service, and so rendered childless, a large number of the ablest Spaniards. On the other hand, the Church again, through the Inquisition, drove out, imprisoned and destroyed immense numbers, amongst whom must have been very many of the

* "Esquisse psychologique des peuples Europeens."—Alcan, Paris.

most original and vigorous intellects of the nation. But this was not all. Spain's immense colonial empire, and especially her American conquests, so rich in gold and romantic attractions, vied with the Church in bringing about her fall; for almost every man of bold and enterprising spirit was drawn into colonial adventures in which thousands found an early death, while others remained to mix their blood with that of negroes and of the Indians of Mexico and of Central and South America. Spain became in fact, as the agricultural districts of England to-day are fast becoming, peopled with women and children and old men, and the laggards and dullards only. When we remember that these conditions persisted during several generations, we realise that only a miracle could have prevented the decline of Spain.

In France we have a notable instance of the depletion of one particular kind of ability, namely political ability. Probably no one will deny that France, while maintaining her high place in literature, science and art, has suffered severely during the nineteenth century from the lack of first-class political ability; that until the appearance of M. Waldeck Rousseau, she had sought for many years in vain for a great political leader. This deficiency is indubitably the natural and inevitable result of the wholesale destruction of political ability during the period of the great Revolution. Of all the men whose taste and public spirit led them to take a part in public affairs, and whose abilities sufficed to secure them any, even a moderate degree of, prominence, a very large proportion came to an untimely end; and though many of them may have fallen only when they had attained middle age and had already become the fathers of families, yet in such cases the children must frequently have suffered in divers ways; and very many must have fallen back from a relatively high social level, so that their strain was swamped by intermixture with the undistinguished crowd.

But it is needless to multiply instances. The facts are sufficiently well established to convince all intelligent

men of this nation's urgent need of such changes of custom, law or institution as will tend to promote the reproduction of the superior elements of the population, and in fact of all classes which may reasonably be regarded as above the average of civic worth.

It seems worth while at this point to consider the limits within which such changes must be confined. In the first place, I submit that they must not be such as to undermine or destroy the institution of the family; because, as I in common with many others believe, every great and stable civilisation has been based upon, and can only be based upon, a sound family-life. Hence the methods of the stud-farm, though advocated by Plato or by Mr. Bernard Shaw, or by any other equally distinguished writer, must be ruled out. This, however, leaves open the question of the form of the family; and much can be said in favour of a restricted polygamy (not the harem). For I do not think that any proposed change is bound to be consistent with the existing state of law and sentiment. Law and sentiment can easily be changed if sufficiently good reasons can be shewn, and it is from such changes that we have most to hope. Something may be hoped for from a wider diffusion of a knowledge of the conditions, especially among women. For it may be supposed that, when the conditions are made clear to all, the really superior women will cease to regard as their principal duty either the attendance at, or the engineering of, social functions, philanthropic or otherwise; that they will once more find their highest duty and pleasure in producing, rearing and educating the largest number of children that their health and their means will allow; that they will realise that this is a career and a profession, difficult, interesting and honourable in the highest degree, compared with which the careers and professions followed by the great majority of men, even the most successful men, are dull, stale and unprofitable both for themselves and for society.

But an important and, as I believe, by far the most important cause of the relative infertility of the better classes, and especially of those among them whom I have called the

emerged tenth, is the consideration of income and expenditure. For the current market-price of good highly trained abilities, *i.e.*, of the services of educated men of abilities of our classes T, U, and V, lies between £500 and £1000 a year, say about £700 a year. This is just such an income as tempts a man of highly educated tastes to remain a bachelor, to postpone marriage, or to restrict severely the number of his children when married.

If this is true, then we may hope something from the spread of a tendency of the best people to mark themselves off from the common herd by a resolute rejection of the wasteful and uselessly luxurious habits of life that have become so common among us in recent years; by the rejection of the "champagne-standard" in fact, and by the practice of a simple mode of life which, while not despising luxuries of the better sort, knows how to discriminate between them and mere ostentation.

But I think we may hope for still greater results from the general adoption of the change of custom that was briefly suggested at the outset of this paper. It is convenient to illustrate the influence of income and to shew how the reform I suggest may be introduced by considering the case of a single highly selected and salaried class; namely, the civil servants.

At the present time the State not only does nothing to promote a relatively rapid multiplication of the intrinsically superior elements of the population, but it actually maintains an extensive and unjust system by which it restricts the multiplication of those elements. The State has in its pay a large number of public servants, all of whom are selected from among many competitors, and of whom a considerable number, namely the first-class clerks of the home civil service, are selected from among the ablest youths of the country, by very severe tests of mental capacity and physical soundness. No one will deny that these constitute a group of men of high average capacity. They are selected by carefully conducted competitive tests from the ablest youths of our universities, chiefly Oxford and Cambridge, to which in turn most of the ablest boys of all the schools in the country find their way. In order

to secure a place in this service, a youth must have not only great mental capacities, but also moral qualities of no mean order, namely, an energy and steadfastness of purpose which enable him to apply himself steadily and effectively to the education of his powers and to the acquisition of learning throughout the years of school and college life. And the competition is so severe and the age limit for candidates is so rigidly drawn that success in the competition implies, save in cases of very exceptional ability, the possession of a sound constitution; for any youth who through ill-health is prevented from continuous and steady work at school and college inevitably finds himself unprepared for the competition when he arrives at the prescribed limit of age. The civil servants of the first-class constitute, then, a very highly selected group, of which the average civic worth is probably not less than that of the V class in the scale of ten classes described above. They constitute, in fact, a class of which the offspring may be confidently expected to contain a relatively large proportion of persons of eminent capacities. It is then of high importance to the State and for the future progress and welfare of the nation that these men shall produce a reasonably large number of children. Now these men receive on entering the service a salary of about £200 a year, and the salary increases on continued service up to a sum which varies from about £600 to £1000 a year, except in the few cases of those who, becoming heads of departments, receive as much as £1500 or £2000 a year. We shall not be far wrong if we say that on the average the salary rises from £200 to £800 a year and put the average at £700 a year. This is an income which the ordinarily successful business-man would regard as pitifully small and miserably inadequate for the bringing up of a family; nevertheless, the career offers compensating advantages, and since the salary, in conjunction with these advantages, suffices to attract as candidates for the service large numbers of the ablest young men at the universities, it must be regarded as adequate, or, at least, the State cannot well be called upon to make any increase in the amount of this average salary.

But the State pays this salary to each of its highly selected servants whether he is a bachelor, or married and has a small or large number of children. I have no hesitation in saying that this is an anachronism which constitutes a grave injustice to those civil servants who undertake the responsibility and labour of rearing families. The practice is a survival from the times when marriage and the production of a normally large family was more nearly universal than it is at present. There can be no doubt also that these civil servants represent just that class of men in which the tendency to postpone marriage and greatly to restrict the size of the family is especially strong and steadily growing. Many factors co-operate to bring about this tendency, but the comparatively small income is undoubtedly the most important and underlies most of the others.*

The average income of £700 a year is not attained by the civil servant under the present system until he has been some years at work, and, as he does not enter the service until he is about twenty-four years of age, he will, on the average, not attain it until he is over thirty, perhaps forty, years of age. Now, to a highly educated man of cultivated tastes, one who

* The ethical question, whether such artificial restriction of the size of the family is justifiable, is not germane to this paper. But a quotation from an article in a recent number of *The Outlook* will not be altogether out of place. The writer, after discussing the decline of fertility of a city-bred population, continues: "The second cause, 'They won't,' is that which is immediately characterised by the 'superior (and superficial) person' as utterly selfish. But tarry, O superior person. Is it indeed utterly selfish? Suspend your condemnation, and consider the matter anew. In times gone by, men's beliefs were simple, as the complexities of life were less. Then the faith that as God sends the babies so He will send the wherewithal to feed and clothe them prevailed. Now we realise that self-help is the surest method of obtaining external assistance. Hence there is to be seen in the middle class—that backbone of the nation in morality, common sense, and tax-paying power—an hesitancy to undertake the duties and responsibilities of parenthood. And let us note this on the part of the man. He realises that all depends on his health and continued capacity for work; that income-tax is something over a shilling in the pound; that he is paying rates which will afford the progeny of the thriftless lower classes an education as much too good as it is dangerous—an education which will render some the competitors of his own offspring in later life, and will render all discontented with their lot. He marries, but he hesitates to become a father. Is it selfishness, superior person, which makes him hesitate? Is the reluctance to have children, when the thread on which their future depends is a frail human life, utterly selfish in origin? Is the abrogation of the highest privilege of man or woman, parenthood, utter selfishness? Is it not rather a high self-denial—a far-seeing solicitous care for the unborn, which will not give life when it cannot see the wherewithal to maintain

has been brought up in the enjoyment of every kind of physical and mental luxury of the better sort—travel, sport, art, abundance of books and tasteful surroundings—an income of £700 a year seems barely sufficient to maintain in decent comfort a wife and one or two children, and to give to those children all those advantages of education which he himself has enjoyed; especially when, as is the case with the class we are considering, he is compelled to live in London, and therefore must afford his family long and expensive holidays in the country, or be content, like so many others, to see his children growing up physically degenerate. For there is deeply implanted in the breast of every Englishman of the better sort the healthy and admirable feeling that he is bound to afford his children opportunities of education at least equal to those which he himself has enjoyed. If then such a man marries, he marries late, and he almost inevitably restricts the size of his family to one, two, or, at most, three children, or perhaps abstains from parenthood altogether. And the temptation to remain a bachelor may be strong, for with £700 a year a bachelor can procure for himself all the luxuries that any intelligent person need desire, whereas the support of even a very small family demands strict economy and the sacrifice of many of the lesser enjoyments of life. No bachelor, in fact, needs more than £500 a year for his personal comfort and luxury, and with that income he may be regarded as at least equally well-to-do with a similar man who draws a salary of £1000 a year and has to support a wife and five children.

That the man who in these circumstances marries and

successfully the struggle for existence? Far from reproach of self-interest for the pursuance of such a policy, should it not rather be approved as one which esteems the duty to others as of first importance? A man who has the courage to carry out such a course of action will be a good citizen. His lawful debts will be promptly liquidated; his support will be accorded to hospitals and charities to the extent that his income will permit; in his old age he will certainly not be a burden to others, nor will his wife be left penniless at his death. The care and foresight which he has exhibited in the one thing will not desert him in providing for his and her declining years. Lastly, by the cleanness of his life and the soundness of his common-sense, he will do much as a unit for the morality and solidity of his nation. Yet by the curious system of the most complex of civilisations, this eminently healthy, wholly sane, and undoubtedly valuable type is being doomed to extinction. The very qualities which are so admirable compel his denial of the privilege of paternity."

brings up a family of several children is performing a service to the State is as indisputable as the fact that the bachelor shirks this primary duty of the citizen. It is clear, then, that in the case of this class of civil servants the present system of remuneration not only constitutes a grave injustice to many of them, but leads directly to a great restriction of the numbers of the offspring of these servants, and therefore restricts artificially the production of those individuals of eminent abilities whose value to the State is incalculably great. Justice and expediency alike call urgently for a reform of the system. I do not think that any objection of appreciable weight can be made to such reform, and it should therefore be welcomed, if only as an act of justice, even by those who may believe that no great advantages will accrue from it.*

The reformed system of remuneration of these civil servants would consist in the adjustment of their salaries according to the number of their children, and some such rough scheme as the following may be suggested. Let so much be deducted from the present salaries of unmarried men that the post to which £800 a year is now assigned would receive only £500, and let other salaries be proportionately reduced in the case of bachelors. On marriage let the servant, no matter what salary he may be drawing, receive an additional £100 a year, and on the birth of each child let him begin to receive an additional £75 a year and continue to receive it so long as that child is living and under the age of twenty-four years. Then, instead of paying £800 a year to the bachelor, to the man with one or two children, and to the man with five, six, or more children alike, we should have the following scale of salaries :—

To the bachelor	£500
To the married man with no children				600
"	"		1 child	675
"	"		2 children	750

* A similar reform of the system of remuneration of the selected classes of State servants might produce very beneficial results in France, where so large proportion of the educated classes pass into the service of the State and where, as M. De Lapouge points out, the civil service constitutes a most disastrous system of negative selection.

To the married man with	3 children	£825
„	4 „	900
„	5 „	975
„	6 „	1050

It is of course impossible to foretell with any pretence to accuracy whether or no this scale would imply a greater total expenditure on salaries by the State, but probably the total expenditure would be approximately the same as at present; and in any case, after some experience of the working of the system, it would be possible to adjust the scale so that this should be the case. Therefore no objection to the scheme can be taken on the ground of even the most shortsighted economy. But an enlightened State would be willing to spend a greater amount than the market price of the ability it requires in order to secure results so important for its future welfare. It might be willing to make an addition to the salary of as much as £150 a year for each living child. For the higher the scale of remuneration on this plan, the keener would be the competition to enter the service, and the higher would be the average ability of the servants, and the greater would be the tendency for them to rear reasonably large families. Both factors would tend to the production of larger numbers of those individuals of highest civic worth whose value to the nation is incalculably great.

If the first-class clerks of the home civil service were the only class of persons to which this scheme is applicable, its adoption might be regarded as a matter of relatively small importance. But I have dwelt upon their case merely because they exemplify the principles concerned in the clearest possible manner. There are numerous other posts in the pay of the home Administration that are filled by highly selected men—inspectorships of education, of factories and so forth—to all of which the scheme is applicable. Again, the Indian and Colonial civil servants are a class selected by almost equally severe tests, and it may be hoped that the present agitation for reform in the army may in the near future bring it about that the same will be true for the officers of both the navy and the army. The State will then have in its pay many thousands

of public servants chosen from the very flower of the youth of the whole country on the ground of mental ability and physical and moral soundness. The application of the reformed method of remuneration will then assume an importance of the first magnitude, an importance that cannot but increase; for, however much we may regret it, there exists an unmistakable and apparently inevitable tendency for the State to assume wider functions, and therefore to employ larger numbers of servants of the highest ability procurable.

The inferior posts of the civil service are also filled by persons chosen by a process of extremely keen competition, and there is good reason to apply the scheme to their remuneration also, although in their case the matter is of less importance.

But we may go further. The adoption by the State of some such scheme as that suggested might have far-reaching consequences in inducing other institutions to adopt a similarly just and nationally beneficial system of remuneration. The example of the State might well be followed by the universities. At the present time the occupants of the university chairs receive stipends ranging from about £200 to £1000 a year, except in a very few cases of larger salaries, and the average stipend is probably about £600 a year. These professors are selected for their exceptional abilities by a process of competition even more severe and more wide-reaching than that by which the first-class civil servants are chosen, and they form a group of which the average ability is probably distinctly higher, including as it always does a number of men of the very highest intellectual distinction. Our universities are growing rapidly in both size and number, and the number of professors, already very considerable, is rapidly augmenting. It is therefore a matter of extreme importance for the universities themselves, and for learning and research, that the occupant of a chair should be remunerated in such a way as will enable him to enjoy a normally comfortable domestic life, else the best intellects will not be drawn into the profession in sufficient numbers; and from the point of view of the future generations it is still more important that for

such men the bringing up of reasonably large families should not entail hardships, the prospect of which must tend to restrict very largely the number of their offspring.

There is good reason, too, for the application of the proposed system to the remuneration of the selected servants of our organs of local government, the scope and importance of which are continually growing. And if the example were set by all these public institutions, it may reasonably be hoped that the justice and the expediency of the system would be universally recognised, and that it would be adopted by all persons and institutions—especially such semi-public bodies as the great railway and steamship companies—that employ servants selected from the great average mass on account of their superior abilities and moral character.*

If this happy result should ensue, we might confidently expect great benefits to the national breed and to the national power and capacity for progress—benefits compared with which any results that could be achieved by the elimination of the unfit by the most ruthless and autocratic of governments would be insignificantly small.

On the other hand, it is but too certain that, if some such system is not extensively adopted, there will be manifested in an ever-increasing degree the tendency, already deplorably real, for the most desirable elements of the population, moved by prudential considerations, to restrict the number of their offspring. This tendency has not yet been at work for many generations; it is the result of the increased strenuousness and the increased severity of competition of modern times. But there can be no doubt that it will grow stronger if not counteracted in some way, and that in the course of a few more generations it must, even

* In the recently republished volume of essays and addresses, Lord Goschen shows that the number of moderate incomes—incomes in the neighbourhood of £500 a year—shows a constant tendency to increase. This he attributes largely to the increasing number of salaried positions held by men of good education. It is perhaps worth while to draw attention to the fact that one public body has long recognised in practice the justice of the system of remuneration of selected servants here advocated. I refer to the Wesleyan Church, whose ministers receive, I believe, larger remuneration in proportion to the number of their children. It is noteworthy, too, that the recently proposed French income-tax recognises the justice of the claim that he who rears a family is performing a service to the State.

if it should grow no stronger than it is at present, produce a most serious deterioration of the national breed. See what must happen. The upper strata being relatively infertile, must be continually recruited from below; and this process, continually draining the great mediocre mass of its best elements, must result in a lowering of the average civic worth of that mass, so that in course of time the best that it can provide for the recruiting of the upper strata will be of less and less worth from generation to generation, and the more perfect our social ladder the more rapidly must this process of exhaustion go on. Our present social system is, then, one which tends in an ever-increasing degree to eliminate the most fit and the most desirable elements of the population, to select them by an elaborate organisation from all the strata of society, to sterilise them and to replace them in the succeeding generations by inferior elements. No people, whatever its vigour, can fail to deteriorate under such a system, and in the great world-struggle it must inevitably succumb and fall back to an inferior position among the nations. No improvements of institutions, of education, of environment can compensate for this. To those who, like the present writer, believe that the English-speaking peoples have evolved through long ages of strife and toil a system of civilisation higher than any other that the world has yet seen, one full of promise for the future welfare and progress of mankind, the change of custom here suggested will not seem to be a matter for academic discussion merely, but will appear rather as the most urgently needed social reform that lies within our power to effect.

Increase of knowledge is showing us that we are responsible for the welfare of the generations to come in a fuller sense than could be realised by our fathers. We cannot shrink from the burden laid upon us and retain our self-respect.

DISCUSSION

DR. C. W. SALEEBY SAID:

In the first place, I would comment upon Mr. McDougall's remark that all who are interested in the progress of society must deplore the biologist's conclusion that acquired characters are not transmissible. I understand how, as a psychologist, Mr. McDougall is inclined to deplore this conclusion, but I question whether, as a physician, he can concur with himself. From the physician's point of view, as Dr. Archdall Reid has abundantly shown, it is an immeasurably beneficent thing that acquired characters—all the results of injury and disease and bad environment—are not transmissible.

The only other point I would make is that the present contrast between the fertility of, say, the uppermost and lowermost classes of the community seems to me to be a temporary one. It must be recognised that when what we may call neo-Malthusian knowledge is more generally diffused, the rate at which the lower classes multiply will very much more nearly approximate to that which we somewhat uncritically deplore in the case of the upper classes. I fancy that life is found to be sufficiently strenuous amongst the poor as well as amongst the rich. When they know how to restrict their families they will do so, and the disproportion which Mr. McDougall and many other observers now deplore will disappear. Is not this a consummation to be hastened?

MR. BENJAMIN KIDD SAID:

Mr. McDougall has, I think, put his finger upon a question which nearly every civilised nation will find to be a most practical and pressing one in the immediate future. The question of the restriction of population is one which has been long foreseen by students of society in nearly all foreign countries. It arises out of many causes—largely, I think, amongst other causes that have been mentioned, from the fact that our industrial civilisation and the kind of struggle that goes on

in it puts a very high premium, as Mr. McDougall pointed out, on the restriction of families. Nevertheless, as I listened to the unfolding of the paper I could not help thinking that it was a pity to put the case quite on the grounds Mr. McDougall put it upon. To my own mind the case is absolutely conclusive, that without a large population a nation cannot hold its place in the world amongst other nations at the present day. The difference between what I might call the old social theories and the new social theories might largely be summed up in a phrase: the old social theory seemed to put the success of the nations on the basis of wealth; the new social theory puts the success of a nation in holding its place in the world on, other things being equal, the basis of numbers. The old rested on wealth, and the new on numbers. That we should breed from what is called the intellectual classes of society is a very taking proposal at first sight, but the more one knows of history the more convinced does one become that underlying the idea there might be a very dangerous fallacy. In fact, as Mr. McDougall unfolded his paper, I could not help thinking that one point after another in history which he raised told also another way.

It has to be proved that we want a larger number of an intellectual class than we can get even under present circumstances. Personally, I think that, for instance, the case of the very highly selected civil service clerk of the superior grade, or of any other profession of a superior grade, selected under examination, who is to be rewarded by additional salary graded according to the number of his children, might lead to the opposite result we wish to produce. Mr. Galton gave a lecture on this subject; but he seemed to me to miss the point of the whole matter, namely, that while we have to consider what society wants, and not what the individual wants, Mr. Galton gave no consideration to what social efficiency really is. There is always a great tendency in people's minds to confuse social efficiency with individual efficiency. Yet the individual may be very efficient as an individual, while he may be an utter failure from the social point of view. *Per contra*, individuals of the very highest social efficiency, the men whose ideas in the past have often carried the race from one social epoch into another, are just those who would often have entirely failed to pass the kind of standards Mr. Galton mentioned. Is it not possible that society is even at the present moment doing the very best for itself by weeding out those selfish bachelors who do not wish to marry, or who are not altruistic enough to bring up a family without those luxuries which the State is asked to provide? We might breed a more intellectual class, but we might lose a still more important social breed of people, which are got under the present system with which we are finding fault here. All this has to be considered from a wider outlook.

The case of France and Spain has been mentioned with regard to lack of men of genius. I have read much about Spain from that point of view, but personally, I have not been able to agree with it. I think a strong case might be made out on another side. It was not perhaps the sterilisation of certain classes that produced the existing lack, but rather the locking up of the Spanish mind which grew up under a rigid social system. I think it was the social effect rather than the individual effect. You say perhaps, "Well, how can that be? See how much in front of Spain we are! See how many greater men we have!" All this has to be proved. Only the other day we had a correspondence going on in *The Times* as to the dearth of ability in England. The point of my conclusions is that to understand what social efficiency is we have to understand the problems of human history. We cannot approach the study of these large questions armed only with a foot rule and a few biological generalisations.

MR. DARBISHIRE SAID :

I am a biologist pure and simple, and though we have heard this evening that the foundations of sociological science are largely supplied by biologists I have not studied biology with the view of supplying these foundations.

When we are asked the question how much the biologist can assist the sociologist in elucidating his problems, I think we must confess that we know very little of heredity. Mendel's work has given us a clue which may lead far; but at present we can only deal with the simplest characters, and we know absolutely nothing about the inheritance of the complex mental characteristics which the human species presents. Mendelian investigations may give us in the course of time that accurate knowledge of the causation of phenomena which will enable us to control them—and we do at present possess that control with regard to a few simple characters in animals and plants—but I think the most sanguine Mendelian will not disagree with me when I say that Mendelism is at present absolutely of no use to sociology.

On the other hand, it is maintained that the biometric study of heredity is at present of active use, and I certainly think this is so; but it should always be borne in mind that biometry is of use by taking a short cut, by contenting itself with establishing the fact, as we have heard, that the mental characteristics of men are inherited *on the average* in the same degree as their physical characteristics, nor should it be forgotten that biometry does not attempt to determine how these

characteristics are inherited. And perhaps it may be rightly urged that we are not concerned here with the "how." It may be that what the biometricians can tell us is all we shall ever know about the inheritance of these complex things. But I am not so despondent as that; and I think the time may come, although it may be very distant, when that other branch of investigation which is now dealing with the simplest characteristics will endow the breeder of men with the control which it has already put into the hands of the breeder of cattle and vegetables.

I strongly agree with the object of the paper, and I think that it is high time that some steps were taken to sweep away a state of affairs in which on the average a man's opportunity for reproduction varies inversely with his capacity for civilisation. But I think one cannot be blind to the fact that serious difficulties lie in the way. I am not sure that it will be very easy to discover what classes should be granted this increased opportunity for multiplication. We are not at all agreed as to what class contains the greatest percentage of persons of civic worth. For example, to consider three classes in their relation to one another: suppose a *plebiscite* were taken of the officers of His Majesty's Army, more votes would be recorded in favour of the extension of the right to reproduce to the class of clergymen than to that of the professional biologist; and if a vote were taken among either of these two classes, this right would be absolutely denied to the other. To the former, the extinction of rationalism is essential to the welfare of the human race; to the latter, the indefinite multiplication of the man "whose God is in the sky" is fatal to it.

Again, a difficulty seems to crop up in connection with the operation of the scheme. The object is that parents of civic worth should produce more children than they do at present; and, to further this object, the operation of the scheme would seem to take the form of the augmentation of the salary of the father with the birth of each successive child. Now, in so far as current usage and sentiment prevent a man from begetting children before he can support a wife, and as it is this step (that is, marriage) which the scanty means of many people of civic worth prevents—just as much as they prevent the production of children after it has taken place—on second thoughts it would appear that the augmentation of salary should take place at marriage. But in either case difficulties seem to arise. Suppose the increase takes place at marriage, husband and wife—both being dishonest, but fertile—might swindle the Government by pretending to be sterile. On the other hand, should the increase not take place until the birth of the first child, both of the couple might be honest, but one or both might be sterile; yet that the virtue of such a couple should be unrewarded would be a hard thing indeed. I think there is a special reason for which, apart from the main reason, Mr. McDougall's views should be brought forcibly before

the public eye; and that is, that it is an example of the kind of question on which every man and woman should form an opinion. The free discussion of questions of this kind is universally discouraged, and things are even worse than I thought they were. I did not know until the other day that the fearless discussion of the question of population and its restrictions was not considered to fall within the sphere of the serious student; but a thing happened to me which proved that this is so. Wishing to consult Malthus' work on population, I went to the Science Library in the Victoria and Albert Museum, which is the library on which we at the Royal College of Science mainly depend, and not finding Malthus among the M's in the catalogue, I asked the principal attendant if that were the only catalogue; and on being told that it was, I asked in all innocence, "Have you Malthus' Book on Population?" only to receive the answer, "Oh, no; that is not at all in our line." And though he said this with the utmost courtesy, I left the room feeling that I had been rebuked for morbid curiosity.

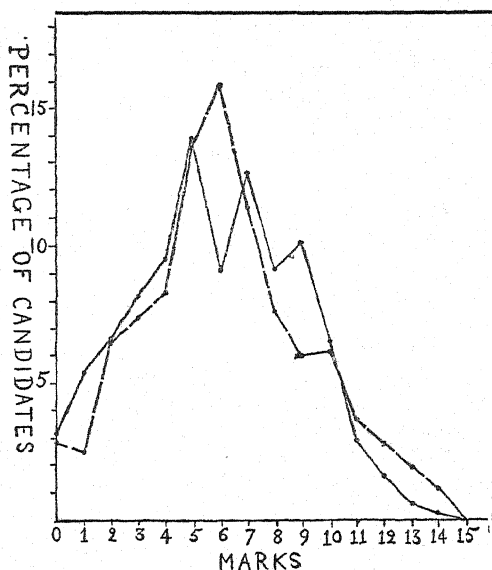
In conclusion, I would like to say that I have referred to the difficulties which seem to stand between Mr. McDougall's scheme and its realisation because it is whole-hearted—on the same principle that the best patriots are those whose eyes are as open to the faults of the nation in which they happen to have been born as they are to those of others, and that the worst enemies of civilisation are those whose frame of mind is expressed in the words "right or wrong, my country."

DR. L. N. G. FILON SAID:

Before I say anything about the paper, I should like to refer to a point mentioned by the last speaker and which appealed to me strongly. It does seem scandalous that in a library which is intended to be used by the students of the Royal College of Science, an institution where Huxley taught, the book to which Darwin refers in his Autobiography as having first started him on his researches on the origin of species should appear to be excluded. Coming now to the paper before us, I find myself very substantially in agreement with Mr. McDougall's proposal, but my agreement is not based on the reasons which he has put forward in its favour. I agree with his proposal, not because it is eugenic in the sense in which apparently the term is understood—that of favouring the parentage of one class as against the parentage of a different class—but because it seems to me to favour within the limits of the same class the parent as against the bachelor. Mr. McDougall takes one particular class, and urges that in this class the parent should be favoured against the bachelor. Of course, that is bound to

increase eventually the output of distinguished men without restricting the possible output of other classes of the community, and to that there seems to me no possible objection. But I do not quite see how his proposal is eugenic in the sense in which Mr. Galton, for example, would understand it; that is, I do not see that it does favour one class at the expense of another; and I must say that, if it did, I should have to speak against it, because it does not seem to me that the case has been made out for attempting any such thing. Nobody so far seems to have questioned the basis on which the argument of Mr. McDougall in favour of eugenics is founded. This basis consists chiefly, if I mistake not, of the statements in Mr. Galton's Huxley lecture. Now those statements do not represent actual observations. What Mr. Galton says is this: if you assume certain contributions of population according to a certain mathematical law, and if you suppose that all classes are equally fertile, and that their offspring follows the same law, then such and such results will follow. To the question whether that law is actually followed, or any of the postulated conditions satisfied, no answer from experience is given. There are no observed facts at all at the bottom of Mr. Galton's Huxley lecture. There has been a recent attempt, I think by Professor Karl Pearson, to supply that deficiency by means of an investigation on mental characters of school children. The method used to prove, for example, the collateral heredity between brothers or between sisters is I believe this: various schoolmasters and schoolmistresses are consulted about pairs of brothers or pairs of sisters in their school and they are asked to fill up, according to what seems to me a very vague scale, a statement of their opinion of the temper or ability or popularity of these various pairs. Now, to begin with, I think that most elementary schoolmasters or schoolmistresses who are consulted start with a strong bias in favour of the notion that brothers or sisters must be alike in some way. Moreover, I do not think that it is at all a reliable method of classifying mental characteristics. It seems to me that all you get is the personal impression of an individual. For example, with regard to popularity, I can quite well imagine that a certain scholar might be extremely popular with his schoolfellows and extremely unpopular with his teachers, and conversely. Therefore, I do not think the opinion of the teacher is at all a safe guide for measurement of mental characters in the child. It so happens that I have had in my hands data as to the measurement of what is possibly one of the most measurable of mental characteristics, that is to say, mathematical ability, as tested by a paper on Elementary Arithmetic. The results are shown in this diagram. Here are two groups of candidates taking the same paper. In one group there are 351 candidates and in the other 316. The groups were taken from a list arranged in alphabetical order,

and they represent, I should say, almost perfectly random sampling. The paper contained arithmetical questions, and there was practically only one way of answering them. The examiners had the strictest instructions as to the manner in which they were to mark. Every precaution which forethought could devise was taken in order to ensure that there should be no variation in the marking, and as a matter of fact, it was found that when the chief examiner revised the assistants' marks there was hardly ever any need to alter the marking by more than half a mark—that is to say, the margin of error is very small indeed, and it would seem that under those conditions the curves of the two examiners ought to be exactly alike. But when the curves are plotted, it is found they are not. Thus, at a certain mark, there is a sharp dip in one; whereas the other curve has a very high peak at that point, and there are other characteristic differences. When you come to work out the means and also the variabilities, it is found that one examiner has a higher mean, and that his candidates appear to be less variable. Moreover, a definite asymmetry exists in both curves. (This alone, by the way, contradicts Mr. Galton's hypothesis). This asymmetry is much more apparent with one examiner than with the other.



Now these two examiners are men who have examined students of this type for 20 years. I must say on first seeing these results I was very much surprised; I should never have expected any difference of this kind. If you get this sort of difference in judging of the answers to questions on arithmetic, what sort of divergence are you going to get in dealing with civic worth? One speaker to-night has told us we are not at all agreed as to what civic worth is; in fact, you might very well define civic worth to be proportional to the number of children. You might say that the most fertile people are the people of highest civic worth, and then the whole argument would *ipso facto* fall to the ground. I have mentioned this to show that we have at present no positive basis for measurement of mental qualities, and accordingly we must remain to a great extent in the dark as to their distribution among the population. That being so, I

am going to put before you a possibility. It is quite likely that fertility in any class may imply greater variability in the offspring. It seems very possible that people of the lower classes who are more fertile are also more variable in their offspring. I do not say that they are; the point has not been settled, but see what might happen. Imagine you have three classes above the mean and three below. We will call those above the mean *A*, *B*, *C*, and those below *a*, *b*, *c*. Imagine 100 children born in class *A*, and 100 born in class *a*, and suppose the children of the class *A* are less variable than those born in class *a*. These children will not all remain in the same class, they will spread themselves out among the various classes, but those born in class *A* will not spread out very much. We shall suppose that this 100 are distributed as follows (I am putting fancy numbers to make clear the argument): 70 in *A*, 15 in *B*, and 15 in *a*. Now imagine that your 100 children of *a* are very variable and that they are spread very widely throughout the population. We will say 28 in *a*, 20 in *A*, and 20 in *b*, 12 in *c*, 12 in *B*, 4 in *C*, and 4 below *c*. As to those in the very lowest classes, I suppose society and circumstances will generally take means to eliminate them. But my point is, that these 100 children of *a* may actually give a greater contribution of distinguished men to the nation than the 100 children of your non-variable upper middle-class; and accordingly if you favour the *A* parentage at the expense of the *a*, you may be actually decreasing your output of distinguished men.

THE CHAIRMAN (in closing the discussion) SAID :

It was asked, very pertinently, What is civic worth? And perhaps Mr. McDougall will give us his definition of it. Personally, I should be inclined to accept the definition of President Roosevelt, because it applies to the great mass of the people; namely, courage, honesty, and common-sense. You might say that it does not take in fertility, but I should reply that the man who has the courage to face all difficulties and bring up a large family possesses courage of the highest order. Now the great bulk of a nation is made up of the industrial classes, and the prosperity and progress of the nation depends upon their labour, health and strength; moreover, from the industrial classes have sprung great manufacturers and inventors of all descriptions, and if secondary education comes to the industrial classes I have no doubt they too will furnish the brains of the country. They have already sent to this Parliament some very able men, and in the next Parliament there may

be a great many more. Now that the question of Old Age Pensions is coming up, it has occurred to me that, if they are to be properly applied, we should seek amongst the industrial classes for civic worth as one qualification. And who are the people of civic worth? I should say aged couples who have shown courage, honesty, and common-sense; who have lived sober lives and brought up large families. They should be taken first, because they have not had the opportunity of saving means to prevent them going to the workhouse in their old age. I must say that I do not think Mr. McDougall's suggestion with regard to civil servants is practicable. Many speakers previously have alluded to the reasons why it is not practicable. And again, I would rather suggest that in selecting candidates, a boy might be taken from a large family, because he was one of a large family, rather than to give him a premium afterwards because he produced a large family. That would not affect the purse of the nation, and it would have the same effect on fertility, because if he has grit he will get on; and if he is not satisfied with the prospects of civil service, he should not go in for it. I think I am right in stating that there was a general consensus of opinion amongst the bankers of London that they would not allow their clerks to marry until they were earning a certain salary; the reason being, I suppose, that they found it led to a certain amount of inefficiency, and perhaps occasional dishonesty. Again, if the intellectual classes are sterile it means they are selfish; and if they are selfish, then they should not exist—even if they are intellectual. I think this question must be put on a different basis altogether. The great thing to aim at is the education of the public conscience, and in that I thoroughly agree with Mr. Galton in all he has said and in all he is doing, especially towards the education of the public conscience to the pride of family and the pride of race. It is the old pride of family, I believe, which has made the Japanese the great and patriotic nation they are at the present day.

WRITTEN COMMUNICATIONS

FROM MR. ELDERTON.

Mr. McDougall suggests that, in order to do something to combat the relative sterility of the better elements of the community, it would be well to introduce the custom of remunerating the services of persons selected for superior capacities in proportion to the size of their families. If any scheme is to have any measure of success, it must, I think, be extensive, and be adopted in the large commercial, engineering, banking, etc., enterprises; but if one of the causes of the sterility be, as is suggested, the stress of modern life, it is hardly possible to imagine that the big firms and companies, who are also feeling this stress in the form of keen competition, will pay more in wages than they do at present. The scheme would probably mean, therefore, a readjustment of wages without altering the total figure paid, and this would probably involve a decrement in the wages of the unmarried. As the large families of the better paid grew up, their members would, until they married, require more help from their parents than they do at present; and this would perhaps further press them to marry at an early age, though I am not very sure that the marriages they contracted would be on the average more "eugenic" in character than marriages are at present. Unless the remuneration scale were adjusted with great nicety, the scheme might lead merely to the endowment of large families, rather than of large *and eugenic* families.

Would not the effect of remunerating services more in terms of proficiency and less in terms of seniority than is done at present be pretty much the same as Mr. McDougall's scheme? A young man shows ability, and is tried with responsible work of a better paid character, and the actual increase in his earnings is to some extent an encouragement to marry, though it would not be an encouragement to a man to have a large family, unless he continued to prove proficient in comparison with those doing similar work.

I am bound to admit that I am doubtful if any "payment scheme" is likely to prove very successful, because I cannot bring myself

to believe that it could be generally adopted, and even if it were the result might merely be to increase rash early marriages, instead of somewhat wiser later ones. But whatever might prove to be the result of any experiment such as that outlined by Mr. McDougall, I should welcome any agitation which might cause people to consider the national dangers of existing conditions, and think more of their social responsibilities and less of personal luxury.

FROM MR. FRANCIS GALTON.

The probability that any Government would consent to raise the salaries of their higher officials, because they had reared large families, seems to me too remote for profitable discussion; but I should be glad to diverge into a somewhat similar question. It is as to what might be accomplished by a substantial sum, set apart for a special venture, and entrusted to an influential society who were eager to promote eugenics. The question must be discussed on the basis of definite figures, in order to judge of its cost and of its effects, both direct and indirect. The figures to be taken will be £50 for each selected married couple, and another £50 to defray all administrative charges, which would include the maintenance of a brief life-history of every child, annual reports, and careful statistical discussion. Therefore, each £100 of the capital sum is supposed to satisfy all requirements connected with one average family: a father, mother, and five children. I will suppose the total capital sum to be spread over four years, and to amount to £20,000. That would be enough for the registration, etc., of the children of 200 families, mainly of the upper artisan class—say of 1000 children. This would be a very valuable experiment on an adequate scale, and would rank as of equal importance with other scientific ventures of somewhat similar cost. Fifty awards are roughly at the rate of one per million of the entire British population. This, at the total cost of £100 per award, would amount to one-fortieth part of a penny per head—no great extravagance for a national object, even if continued, as suggested, during four years. Preliminary details would have to be discussed and re-discussed with minute care, whose frequent publication would familiarise the public with the scheme, and render it more easily carried out when the time arrived. The selection of the couples would be by committees and sub-committees, out of a list of those proposed and seconded, with a brief list of qualifications, for the truth of which the proposer and seconder will be severally responsible. It would be conducted on the same general principles as those by which the elections of officials, of medallists, etc., are conducted,

partly by testimonial, partly by private information, and towards the last by inspection. Those who are provisionally selected would be still subject to a well defined medical examination that takes heredity into account. Vacancies caused by failure to pass would be filled up from the next on the provisional list. The inducement to candidates would be partly the £50, partly the public recognition, and largely the assurance that the children will be hereafter favourably regarded by many persons, not a few of whom might give influential help at a critical moment. The fact of being "eugenic" would often turn the scale when other merits were equally balanced, and the consciousness of the boy that he was noticed, and his sense of *noblesse oblige*, would be a stimulus to do his best. It would be long before the success of the experiment could be fully known, but probably enough would be learnt in a few years to encourage or discourage its repetition, or to suggest new ways of forwarding eugenic ends.

FROM DR. ARCHDALL REID.

With the object of Mr. McDougall's paper I have the fullest sympathy. He seeks to base sociology on biology, and so, delving to the depths, to find a sure foundation. But his premises appear to me highly debatable. He declares that "mental and moral qualities are inheritable in the same sense as physical qualities." Well, but supposing a child of refined and educated English parents were reared from birth by African cannibals. Then, in body, when grown, the child would resemble his progenitors more than his captors; but does any one believe that the same would be true of his mind? We have historical evidence that Anglo-Saxon children, reared by American Indians, have been every whit as ferocious, treacherous, and ruthless as their captors. All Anglo-Indians know the disastrous effect of too much association with native servants on the plastic minds of white children, and we all dread the influence of bad companionship on our own offspring. The English child I speak of as reared by cannibals would certainly display no hint of the language and general knowledge of his parents, no tincture of their moral, social, political, and religious ideals and aspirations. He would ruthlessly murder and enjoyingly eat the stranger. He would harry the strangers' property and annex the strangers' wives by the wool of their heads whenever practical. He would treat his own wives as beasts of burden, and thrash them as a matter of routine. His æsthetic ideals would be satisfied by plenty of grease, a little paint, and a few beads; his moral ideals by a homicidal devotion to the tribal chief. His god would be the native fetish, to whom he would

offer human sacrifices. He would go naked but unashamed. The Rev. John Creedys of Grant Allen's story exist only in fiction. The evidence, then, is overwhelming that mental and moral qualities are not inherited in the same sense as physical qualities. The common-sense of mankind has universally recognised this radical difference between man's mind and his body. We let our children train their own bodies, being satisfied that physically they will develop well enough under the influence of sufficient food, fresh air, and exercise; but to the training of their minds we devote the most anxious care. We mould them, and we know that we mould them. Nobody fears that his child will be made short or dark by association with short or dark companions, but every one dreads that his child may become silly or bad if his associates are silly or bad.

The lower animals eat, and drink, and grow, and as they grow develop certain instincts inevitably. These instincts are inborn mental characters, and as such are transmissible to offspring. Man also has his instincts which develop in the same way, which are similarly transmissible, and as regards which he is in no way superior, but often inferior to lower animals—the impulses to eat, to drink, to sleep, to rest when tired, to sport when rested, to love his mate, to cherish his offspring, the instincts of imitativeness and curiosity, and so forth. Besides their instincts, some animals have the power of profiting by experience. That is, they have a memory by means of which they make mental acquirements, and in which they store past experiences for the guidance of future conduct. In every species the extent of the conscious and unconscious memories is always proportionate to the power of utilising their contents. The two combined make up what we term intelligence. As a rule, the higher the animal the more intelligent it is. It has a wider memory and greater power of utilising remembered things. That is why a dog is so much more teachable than a rabbit, and why we can by teaching alter its character so much more. By practically universal consent it is agreed that mental acquirements, like physical acquirements, are not transmissible to offspring. Thus a puppy is not born with a knowledge of the things its parent learned. It must acquire them for itself, and it does so because it is similarly trained.

Now man is pre-eminently the educable animal. He has an enormous memory and enormous powers of utilising its contents. It is this that differentiates him from other animals and makes him human. A baby is born as ignorant, as non-moral, as unintelligent as any sucking pig. But the difference between the mental acquirements of a learned pig and a learned man demonstrates how much more educable the latter is, how much more capable of storing experiences, of being modified for good or evil by his surroundings. It is this educability

that confers on a man all his morality, all his intelligence, all his intellectuality, all his reasoning power, all his adaptability. Because he is able to grow mentally in adaptation to the environment in which he is reared, he is capable of becoming a statesman or a chimney-sweep, a savage or a civilised being, a master or a slave, a doctor or a lawyer, a thief or an honest man. The instincts of men have everywhere and in all ages been the same; for instincts are inherited in the same sense as physical characters are inherited. But man's knowledge, aspirations, ideals, and all that flows from them belong to a different and a higher category. They are acquirements, and as such are not inherited by offspring. Even when displayed by a hundred or a thousand successive generations they are acquired by each individual afresh. For this reason, because no man's experiences are quite the same as those of any other man, individual men of the same family or class differ widely amongst themselves; men of different classes differ yet more, and men of different nations even more. For example, though our instincts are much the same as those of every other race, we in England differ at the present time greatly in our acquirements from West African savages and our equally savage ancestors. No doubt there are important innate differences, but, speaking generally, these are so completely masked and overshadowed by immensely more important acquired differences that they cannot be recognised without much closer scientific investigation than has yet been attempted.

It is necessary to distinguish sharply between two things: between, on the one hand, the innate capacity to make mental acquirements, and, on the other, the acquirements themselves. Thus a man may have exceptional mathematical ability, by means of which he achieves considerable mathematical acquirements if afforded the opportunity. The ability is inborn, and tends to be inherited by offspring; the acquirements are not. Possessing the ability, the child may or may not become a great mathematician. But such a one is more likely to receive a mathematical training than the child of an ignoramus. Without the training, the ability would be nought. The same is true of every other mental peculiarity. Birth, therefore, bestows on the child the parental aptitudes; association the parental acquirements. The child's imitative instincts impel it to copy its parents. Children, therefore, resemble their parents for a double reason: first, because they tend to have much the same innate capacities; and second, because they make much the same acquirements. Of course, however, the parent is not the only influence in the child's environment. Other influences affect the child; for example, the health he enjoys, the companions he meets, and the religion he is taught. Nevertheless, the educational influence of the parent is very potent. On this account, for instance, honest, refined and cultivated people have, as a rule, children of the same type.

If confirmation be wanted of the indubitable fact that children resemble their parents, not only because they inherit the same instincts and aptitudes, but even more because they make the same acquirements, we may find it abundantly in the history of mankind. Man is a very slow-breeding animal. All students of evolution know, therefore, that innate changes of any magnitude can occur in his race only slowly—so very slowly that thousands of years are necessary to their evolution. Yet under changed educational influences many races have altered their characteristics very rapidly. Thus anciently the Greeks quite quickly became one of the most splendid races of which history holds record, producing, in proportion to their numbers, an unparalleled multitude of distinguished men. Even more suddenly they sank into degradation, and subsequently of distinguished men they have produced hardly one. The doctrine of evolution and that of averages forbid us to believe that the change was one of innate qualities. The Romans rose and fell in much the same way. The history of the Renaissance teaches a similar lesson. The history of religious changes teaches it vividly. All races which follow any given religion resemble one another closely in mind even though when of diverse race, and differ from the followers of other religions even when of the same race. Thus the mental traits of Greek Mahomedans are very like those of other Mahomedans, and differ sharply from those of their relatives, the Christian Greeks, and their ancestors, the great Pagans.

When Mr. McDougall declares that moral and mental qualities are inherited in the same sense as physical qualities, he places all mental qualities on the same plane as instincts. He fails to note how much more educable the mind of man is than his body, how much more under the influence of the environment. It is conceivable, for example, that among his audience are people whose whole mental life will be altered by his lecture. Such things have happened. But it is impossible that their bodies could be equally modified in so short a time except by injury. To him every thief is a born thief, every savage a born savage, every fool a born fool. He makes no attempt to ascertain what the average man owes to inheritance and what to training. All is attributed to inheritance. The authorities he cites have perpetrated the same error. They have demonstrated statistically that ability, probity, geniality, and the like, tend to run in families. In this conclusion they are certainly right. But when, without further investigation, they assume that all resemblances between parents and children are due to inheritance, they are certainly mistaken. Their inferences are not warranted by their data. To prove that children resemble their parents is not the same thing as to prove that the resemblances are all due to inheritance. On precisely the same grounds they might have declared that Frenchmen inherit the words of the French language, and that civilised

racess are innately inclined to wear boots. Resemblances come by association as well as by inheritance; they are acquired as well as inborn. Except as regards instincts, it is, in fact, impossible to deny the enormous influence of the environment in the creation of the mental and moral qualities of every human being who is not a congenital idiot. The environment creates most of those qualities, in the same sense that a sculptor creates a statue, or a painter a picture. The artist must have materials to work with, and to do well he must have good materials. But however good the materials, the finished product in a real sense is wholly his own creation. Idiots are idiots only because their memories, and therefore their reasoning powers, are defective; because they are incapable of growing mentally in response to the environment; because they cannot store, organise, and utilise the complex mass of acquired details which, with the exception of the instincts, form the entire mental equipment of the normal individual. Mr. McDougall would reduce us all to the status of idiots. Geniuses are geniuses only because they are able to learn, and utilise their learning, better than ordinary men. The very authorities who declare that mental and moral qualities are inherited in the same sense as physical qualities, contradict their own doctrine by choosing with the greatest care good companions and teachers for their children. They have declared that nature is stronger than nurture. But really this is a very wrong way of putting it. The real truth is, that nature has so fashioned man that he is transcendently responsive to nurture.

The issues raised by Mr. McDougall, in a lecture for which we can never be too grateful to him, are of more than merely academic interest. If he is right, if mental and moral qualities are inherited in the same sense as physical qualities, then all attempts to raise and improve mankind by teaching and example are entirely hopeless. In particular, all sociological work is hopeless. A chasm, not to be bridged in a thousand years, divides race from race and class from class. Speaking practically, savages must always remain savages, non-progressive races always non-progressive, the brutalised classes always brutal. We must rely entirely on the slow action of selective breeding, and the task of persuading an exceedingly stupid race to adopt selective breeding is an impossible one. On the other hand, if the stupidity and brutality of the majority of stupid and brutal men are merely acquirements, the outlook is very hopeful. We have only to improve the mental training of the mass of men, and at once we shall render the race intelligent and noble—more intelligent, if our training be good enough, than the ancient Greeks, more noble than the ancient Romans. To an intelligent race many things are possible which are not possible to an unintelligent one—even selective breeding, for example.

If we wish to do really useful work we must apply appropriate

remedies to the evils we desire to mend. We must recognise that an attempt to make men honest (for example) by selective breeding would be very similar to an attempt to convert the French into an English-speaking race by that method. In man, as in all higher animals, there are two separate and distinct kinds of qualities, the inborn or innate and the acquired. If sociology is to derive any teachings from biology that distinction must be the first lesson. Beyond doubt it is useless to try to improve the innate qualities of the race except by selective breeding; but it is equally vain to seek to improve acquirements otherwise than by improved training. Always, from the nature of the case, our first task must be to improve the acquirements. For though all men are not born equally capable of acquiring knowledge, intelligence, efficiency, and the like, yet in every man these qualities—some of which are necessary to the success of every enterprise—are pure acquirements which can be exalted by good, or depressed by bad training. This truth is tacitly admitted by all men—by Mr. McDougall, for example, for has he not sought with success to educate us by this lecture?

FROM MR. E. H. J. SCHUSTER.

Mr. McDougall's suggestion appears to have the merit that its title claims for it—that of practicability. But it would be interesting to have an answer to the question: What is the extent of good results that may be expected? and it appears to me that at any rate a partial answer might be obtained in the following ways:

(1) By collecting estimates of the civic worth of, or records of the achievements of, the offspring of the "highly selected class of government servants," in order to determine whether under existing conditions they are above the average for this quality.

(2) The encouragement to marry and have children, in order to be effective, would have to be given early in the career of the selected persons, before their merits could have been tested by the highest standard, namely, by that of their efficiency in the serious work of their lives. They would be selected almost entirely by examinations in school work, and on account of this it would be well to determine the correlation between success in examination of the father at the commencement of adult life and the civic worth of the children. Granted that this correlation is a fairly high one, Mr. McDougall's prescription could not fail to be of service; for not only would it increase the size of the families of the selected class, but it would also offer additional inducements to compete for places within that class; so that the successful candidates, being chosen from a larger number, would be even more rigidly selected than is at present the case.

FROM DR. J. L. TAYLER.

I would like to allude to a few points in Mr. McDougall's interesting paper which seem to me to require consideration. While fully agreeing with his main contention—that the better elements in the population deserve, according to the sociologist's point of view, more attention than the worse—I cannot help feeling that there are grave objections to his practical proposal for endowing certain favoured classes of the community.

For assuming that his idea were a feasible one, it is open to the criticism that the wives of the selected civil servants are not similarly selected, and, therefore, unless they also could be subjected to similar tests, the scheme must fail.

Further, Edmond Demolins has pointed out that the civil servant is generally lacking in initiative, and he believes that the relative absence of energy in France as compared with England is in great part due to the large number of government posts in the former country as compared with the latter. It would be interesting to know what answer Mr. McDougall would give to the French sociologist's contention.

Apart, however, from these two difficulties there are others which I feel to be of exceptional weight.

Firstly, Would the influence of the monetary consideration tend to cause men to choose wives for physical and reproductive reasons rather than for mental comradeship? If so, would not this favour a lower average mental capacity in the children born of such mentally inferior mothers? Would it not also favour egoistical rather than social altruistical ideals?

Secondly, I notice an absence of sympathy in reference to the woman's position (a) as regards her own cultural life, for very frequent child-bearing is apt to stultify mental power; (b) because a mother's duties, like a father's, are not simply those of breeding but also of rearing children, and a mother's mental endowment is as necessary to her children through her own personal influence as through her impersonal hereditary transmission of characters. Would not few children trained under a mentally alert and sympathetic mother be better for the State than many children brought up without this parental influence, owing to the enfeebled condition of the woman's exhausted mind?

Thirdly, If the endowment suggestion were to become universal, and assuming it to be desirable, would it not be necessary to make distinctions between the many small-family groups that would be affected? Most medical men know that small families result from many causes, some social, others anti-social, as the following:—

(a) Those rare instances where a man marries a woman for mind sympathy and love. Where animal craving and falsely named "social

reasons" are negligible elements, he considers her life as much as his own and has seldom more than three or four children, on account of mental self-restraint.

(b) Compulsory late marriages. Scholarships do not—as they are collective tests applied collectively to groups of students—reach the poor original worker who has a strong individuality and develops his powers by individual methods, and who therefore often fails, and when successful is seldom able to marry early in life; nor do they shorten the *dependent* period of even the fortunate students who, being thus also delayed, found a home late and have few or no children.

(c) Quite distinct to the above two groups is a third, grossly sensual in its main characteristics, the small families resulting from unnatural practices rather than social or mental causes.

(d) A large class who contract disease by immoral habits of life and become sterile from this cause.

(e) Those persons who with desire for parentage are for unknown reasons unable to become parents.

Are all groups to be alike disqualified and all causes treated similarly?

Fourthly, in conclusion, it has never been shown that payment *beyond* a living wage, which varies for each trade and profession, does draw talent in the direction of payment. A non-living wage is, of course, prohibitive; but artistical, scientific, literary and musical pursuits are all to a great extent unremunerative. Yet they are followed and success is achieved, and a large porportion of leaders in these occupations hold that, beyond *necessary* needs, added wealth attracts not the disinterested lover of his work but the money-seeker; a eugenic selection could not therefore take place. Hence it is questionable whether it would not be wiser to aim at abolishing underpaid and marriage-prohibiting posts than to increase those salaries that are already sufficiently remunerative if fashionable methods of living be discarded.

MR. McDOUGALL'S REPLY.

At this late hour I can attempt to reply only very briefly to some of the criticisms of my suggestion made this evening.

Dr. Saleeby suggested that the present disproportion between the rates of reproduction of the better and the inferior classes will not last long because the tendency to

restrict the family will spread rapidly to the lower classes. It is, I think, improbable that the balance will ever be restored in this way or that the customs of late marriage and restriction of the family will spread to the classes of less than average civic worth. And even if such a spread of the customs should take place, that would not abolish, but only render rather less urgent, the need for the introduction of the just and eugenic system of remuneration of the selected classes.

Mr. Kidd's remarks did not seem to me to attempt to deal with the arguments advanced in my paper. He pointed out that the prevalent tendency nowadays is to attach prime importance to the numerical strength of nations. It is true that this tendency prevails, but that does not prevent me from regarding it as a vulgar error. Surely the teaching of all history, and especially of the two recent wars, is that the quality of men and the intensity of their efforts immensely outweigh mere numbers in any international conflict. To the contention that the decadence of Spain was due to the destruction of its eugenic or ability-producing stocks, Mr. Kidd replies that Spain declined because its intellectual life stagnated. I myself had ascribed its decline to intellectual stagnation. The only difference between us on this point is then that Mr. Kidd says simply—the national intellect became stagnant, and seems to be of the opinion that this merely happened and was a change produced by no causes; whereas I, following M. Fouillée and Mr. Galton, point out that very powerful causes tending to produce this intellectual stagnation operated for a century or more before the decline set in, and ascribe the stagnation and the decline to those causes.

Mr. Kidd repeated in brief one of the prime fallacies of his "Social Evolution," namely—there has been no improvement of innate intellectual capacity during the historic period; therefore social evolution and the growth of civilisation have not been due to the intellect. The argument is a *non-sequitur*. I accept the premise and reject the conclusion. But even if his conclusion were sound, it would remain true that our national prosperity can only be maintained in the

international struggle on the condition that we continue to produce men of first-rate abilities and character.

Several speakers, I think Dr. Filon, Mr. Darbishire, and Dr. Slaughter, insisted on the difficulty of selecting the persons of high civic worth. A principal feature of my scheme is that selection is not to be effected by any process of inspection or examination of a few hours duration, but that we should take advantage of that system of selection which is already operative, which begins for most individuals almost from the moment of their birth and continues until they retire from active life; a system which already operates very effectively, and for the perfection of which the nation must and will inevitably strive. I do not think that any one who takes part in the work of one of our great universities will deny that there are very great differences of intellectual capacity among the students, and that our competitive system selects the abler men with very fair success. It is generally recognised also in the universities that the successful men generally combine with intellectual capacity moral and physical qualities of more than average excellence.

Dr. Filon criticised very severely Mr. Galton's table of probable distribution of civic worth. The accuracy of this table is not an essential foundation of my scheme. I have taken it merely as the best approximation to the truth that we yet have, in order to render the argument a little more concrete than it otherwise could be made. But the only necessary presupposition is that mental characters are in some degree hereditary, a fact which no intelligent person will question. There is no reason for postponing eugenic efforts until we know exactly the laws of heredity, still less until we understand the intimate nature of the processes.

One other point of Dr. Filon's I should like to answer. Referring to the hypothetical classes, he said that it might well be that a class C, about the middle of the scale of civic worth, might be relatively richer in progeny of high abilities than a class A higher in that scale, if it (the class C) were more variable. But there is a strong probability that the people who constitute the classes at the middle of the scale

are the least variable; they are there at the middle just because they and their parents have not varied widely from the mean, whereas the criminals and the outcasts at the bottom and the eminent persons at the top of the scale are in those positions because they have varied, and therefore they constitute presumably variable stocks. Dr. Filon put before us an interesting diagram, illustrating the distribution of marks assigned to two groups of students by two examiners. I venture to suggest that if Dr. Filon could give us the marks assigned to one large group of students independently by two examiners, the figures would have a much more direct and valuable bearing upon the question before us than those which he actually produced. If it were shown that the two lists of marks assigned by two competent examiners exhibited no correlation, I would admit at once the hopelessness of estimating the relative mental capacities of individuals. I am inclined to think that the correlation would be close, and this belief underlies the working of all our vast systems of examinations.

Dr. Mott pointed to the presence of some fifty working men now Members of Parliament, adducing them, I believe, in justification of the widely entertained belief that the masses contain an unlimited amount of ability which has not yet found its chance to rise. To my mind the presence of these fifty Members of Parliament drawn from the working classes has a different significance. It illustrates forcibly the high degree of effectiveness of the social ladder to which I referred in the course of the paper, and the results of that effectiveness. We are now going to turn those fifty men, the elect of the working classes, into middle-class beings; we are going to make them desirous that their sons should have secondary, and perhaps university education, and we are going to pay them £200 a year. An inquiry twenty years hence into the size of their families might be instructive.

Dr. Mott suggests that the present system is one which tends to breed courage and exterminate timidity and selfishness. I think that in saying that he overlooks the very important distinction between courage and reckless

indifference. Large families are perhaps as often due to the latter as to the former. To this objection I have quoted in a footnote a very effective answer from the pages of *The Outlook*, but have omitted to read it this evening.

Mr. Galton's written communication seems to imply that he regards the eugenic value of the reform I suggest as hardly comparable with that of his marriage-endowment scheme. I would like to point out that his proposal and mine have very different aims. While his aims at producing a certain number of exceptionally endowed individuals and is essentially artificial, mine aims primarily at restoring the balance of nature by an act of justice, at preventing that extinction of superior abilities which the artificial conditions of our civilisation are tending to effect, and which has been an important, if not the principal, factor in the decline of all great civilisations and national powers of past ages. The two aims are not in any way antagonistic, but I submit that an artificial scheme such as Mr. Galton's will not prevent national decline if the social conditions continue to determine in the future a reversed selection, as they have done in the past, and that the effort to rectify these effects of civilisation, which have proved so disastrous to the civilised nations of all ages, should take precedence of any scheme for artificially favouring the production of exceptional individuals. Mr. Galton has proposed two schemes, one for marriage-endowments for selected persons, the other for the issuing of eugenic certificates. Perhaps I may venture to suggest that a combination of the two schemes might be expected to give far better results than either or both taken separately. Let the holder of a eugenic certificate be guaranteed a certain small annual sum, say £10, for each child born of his or her marriage, and let that sum be doubled if he or she has married another certificate-holder.

Finally, my contention that the present system of remuneration is essentially unjust has not been questioned. I maintain that the proposed reform ought to be effected, if only on the ground of justice and apart from all eugenic considerations; and I submit that no serious objection to

the proposed system has been raised this evening, or can be raised. It has not been shown that it would tend to produce any ill effects, while it remains in the highest degree probable that some valuable eugenic effect would be produced, although it must be admitted that in the present state of knowledge it is impossible accurately to foretell the magnitude of those effects.

STUDY OF INDIVIDUALS

THE STUDY OF INDIVIDUALS (INDIVIDUOLOGY) AND THEIR NATURAL GROUPINGS (SOCIOLOGY).

By Dr. J. LIONEL TAYLER.

Read before a Meeting of the Sociological Society, at the School of Economics and Political Science (University of London), Clare Market, W.C., on November 23rd, 1905, Mr. S. H. SWINNY in the Chair.

The views that I am now putting forward are the summarised results of more than ten years study. It follows, therefore, that I have time to do no more than briefly touch upon the more important points of my position. This fact I would ask you to bear in mind. And though I must, for brevity's sake, express myself tersely with few qualifications, and therefore positively, I yet wish it to be distinctly understood that my paper is intended to be *suggestive* rather than dogmatic in its character.

My paper is divided into two parts, the first being merely a bare outline of my views, and the second part a short diagrammatic statement of the evidence upon which these views are based.

I.

The subject falls into four main divisions:—

- (1) The broad proposition that sociology should be mainly based on individuology.
- (2) That it is not so based.
- (3) That sufficient individuological material is now available to

commence the work of laying a true sociological foundation. (4) Suggestions as to the probable form of the sociological superstructure that would be erected upon such a basis.

(1) THAT SOCIOLOGY SHOULD BE BASED ON INDIVIDUOLOGY.

In my opinion, Herbert Spencer took the only scientific course open to him, when he maintained* that sociology should be founded on the study of the mental and physical characteristics of individuals.

He bases his argument widely, taking inorganic instances, such as bricks and common metal shots, and proceeding from these examples to others, of the plant and animal worlds, till finally he arrives at man.

He states that "the nature of the units necessitates certain traits in the aggregate," but he does not emphasise the fact that the nature of the aggregate is also likely to exercise some modifying influence on the units of which it is composed.

No one will differ from him when he asserts that bricks and spherical shot cannot be piled in the same manner; no one will deny that in both of these instances the units in the piles are very largely the determining elements in the forms of the piles, and that these units being hard and resistant are little affected by the process of piling. But if, instead of taking examples of resistant units, I make comparisons with three such different substances as iron, rubber, and wax, it will at once be seen that the aggregate may have as large, or even a larger, influence on the form of the units as the units may have on the mass.

Spherical iron units would, it is true, be little affected by the way they were stacked; but rubber balls of precisely the same shape would be temporarily much modified by the weight of the balls above them, though they would tend to regain their individual forms when liberated from their mass positions; wax balls would, on the other hand, tend to have their individual character *permanently* modified, and

* "The Study of Sociology."

those most deeply placed would be much distorted while those superficially situated would be little. There is, moreover, a further fallacy evident in the instances that Spencer has chosen, for neither the iron shots nor the bricks die as social units do; so that there is no such continual change of units such as social aggregations invariably present, causing a constantly shifting movement in the positions of the units, and therefore a certain amount of permanent instability in the whole mass.

From this it follows that units determine the character of the mass most definitely when they are of a relatively unyielding nature, while the aggregate influences the units most positively when these are of a pliable, soft, inelastic material; and the whole form of the mass may be endangered if the units do not remain in relation to each other in a relatively fixed position.

If, however, the units are not homogeneous but heterogeneous in their characters, and if, moreover, each single unit is *itself* complex, it is evident that these additional factors will *immensely* complicate the situation. Yet this is the kind of study that we have to consider in all aggregates made up of living beings, and more especially is this so in man.

There are many varieties of citizens, and no two are ever exactly alike; and there are all kinds of angles and unexpected points in each individual's character that have to be taken into consideration. Are human beings so different from each other that it is impossible to foresee how they will be associated? Is society, in fact, founded on what is, *to us*, a chance aggregation, with no discoverable laws to explain its structure, or has its *vastly* complex existence a scientific basis?

Or, again, are all individuals of such a pliable nature that the aggregate form will invariably mould that of the units of which it is composed?

These are the problems that an individuological study would have to reveal.

It may possibly be asserted that there are other alter-

natives available for a sociological survey. If there are, no one yet knows of their existence. The physicist asserts that the nature of electrons and their relations to each other explain the nature of chemical atoms which are formed by them. The chemist believes that the character of the atoms and their relations to each other explain the properties of the molecules. The biologist is convinced that a study of the cells of which any plant or animal is made up is a necessary preliminary to the realisation of the nature and functionary capacity of the whole plant or whole animal. Societies are always composed of individuals; it must therefore follow that the nature of individuals, and the manner in which these individuals tend to group themselves, should be the foundation studies of our problem.

But electrons, atoms, cells, are all sufficiently permanent in their natures to enable sound scientific studies to be erected on their properties. Are human individuals, who form social aggregates, the one exception to this rule? Is man of so plastic a nature that he will conform to any form of life that the environment will impose on him? Are surroundings, and not human units, the main problem in social evolution?

To answer these questions, we may consider briefly a few obvious facts, which are of unquestioned acceptance.

No one denies that individuals differ very widely in their anatomical characters: some are tall, others short; some are dark, others fair; some are masculine, others feminine, and so on. Have these differences any significance? *If they have not, then the whole science of biology, which is based on the assumption that structure and function are intimately related, falls to the ground.* If these differences are significant, then the fact that they continue throughout life in the individual, and in generation after generation of new-born individuals, is itself evidence that individuals are not modified to any great degree by their environments; and therefore the study of such characteristics must be important to the sociologist.

Again, if we look at the history of man, we find no

evidence to support the belief in his modifiability. Primitive man must, it is true, have been greatly handicapped by his primitive environment. Granted that he quite possibly did survive and develop, in the earlier stages of his evolution, in a tropical region, and that this partially protected him, and that he could not have developed without this protection, yet he did not modify so as to better accommodate himself: being less hairy, acquire more hair; having feeble finger-nails, acquire claws; weak teeth, strong. On the contrary, he persisted in his own *unique* course: losing more hair, till he became naked; losing more and more combat-power in his hands, but gaining in discriminative and manipulative capacity; and while his teeth and jaws became less valuable as defensive and offensive weapons, they have gained as instruments of mental expressiveness. He has, in fact, continued his own evolution in spite of his surroundings. He has not become better harmonised to climate and neighbouring living influences, but by his brain and hand evolutions, *which are characteristically his own*, has subordinated more and more climatic and animal opposition to his development, so that now all non-human influences have become so far controllable that they are ceasing to be feared, and are, instead, being utilised by him *solely* for his own evolution. Man is not, therefore, a modified but the modifying element in world surroundings.

Once more, what force is it that checks social development? Not climate, for advanced civilisations are, or have been, scattered nearly all over the world. Not geographical nor geo-political position, for world-empires have developed and decayed in the most diverse situations, and savage man adopts savage contrivances in tropical, temperate, and frigid localities. Not buildings, for these can be pulled down and erected afresh. What checks one man from developing, and many men, is the opposition of other men; and this opposition of massed-man to individual-man, and of massed-man to nature is a growing force in world-life. How men and women tend to group themselves into sociological units, and how these complex units behave in

relation to each other, and influence the nation or empire to which they belong, is, therefore, the major problem of the sociologist, to which other minor geographical, commercial, and political studies will have to be related. Or, shortly stated, massed-man controls largely his own environment, and this environment controls the individual man; so that by survival of favoured individuals and elimination of unfavoured, by marriage and occupational selections, the new generation is fashioned.

But, in order to study how men tend to group themselves, it is necessary to realise how they differ individually. A preliminary individuological study is therefore necessary. Does such a study offer to the student reasonable prospects of ultimate scientific success?

Mr. Galton's researches on twins and on finger-prints prove beyond question the fact that man, throughout his individual life, retains his individuality, and he is therefore a self-acting unity which can be studied. Professor Starling* devoted a whole course of lectures to an insistence on the fact that individuals are organised on an individual basis. He states that "the large majority of the organs of the body are co-ordinated among themselves by the production and circulation of chemical substances," and this view I had already shown to be a necessary one for the rational understanding of the human and higher animal organism from the evolutionary aspect of the problem.† The varieties of mankind are, therefore, probably capable of being classified on an anatomical and physiological basis.

From, therefore, the fact of a well established anatomical diversity of type in man, which postulates like physiological and psychological conditions; from the history of man; and from recently discovered facts relating to man's nature, it is certain that individuals are not more, but much less plastic than was formerly supposed, and are, therefore, capable of being investigated individuologically, and being less influ-

* Croonian Lectures, 1905.

† *Natural Science*, September, 1899.

enced by their surroundings than was at one time realised, are more potent social influences, and of greater interest to the sociologist.

As the study of the cell, and the varieties of cells, is the foundation of biology, so the preliminary study of individuals (Individuology) is necessary to the study (Sociology) of the natural groupings of individuals to form social competing and enforcing units in the whole social aggregate. And as biology, when it realised the importance of the single cell, had to establish a new science, cytology, so sociology, when it realises the importance of the single individual, will have to establish individuology. And it will be from individuological investigations that scientific sociology will arise.

(2) SOCIOLOGY IS NOT SO BASED.

It is unnecessary for me to dwell much on this point. That there is no individuological science in existence is itself proof that sociology is not yet founded on the study of different types of human beings. Neither is any attempt evident among sociologists to emphasise this need. Most competent authorities, however, admit that both in the individual choice of an occupation and in the individual opportunities offered for marriage, unnatural occupational, domestic and class restrictions are imposed; and they see in these restrictions grave social dangers. They realise also that from the national point of view it is essential for each nation to utilise all the talent that as a nation it possesses, but they leave untouched the curious fact that slave, caste, or class formations have existed, and exist in one or more forms in all social aggregates of human beings that have been or are of more than a temporary character, and therefore it is probable that national energy and development of talent have some relation to such formations. *In fact, this tendency of members of a State to group themselves has not been regarded as the central factor in the sociological problem;* and hence the causes that have favoured various kinds of groupings have not been studied, nor the special value and

local fitness of slave, caste, and class systems of social organisation been investigated.

"Equality of opportunity" is a phrase that is being increasingly used by sociologists in opposition to the tendency to favour or cripple those individuals who are fortunately or unfortunately placed by the "accident of birth"; but that occupational groupings and the evolution of group status is worthy of the closest scientific study seems to have been overlooked.

So, too, the disparity that exists between the kind of individual and the nature of the work that such an individual performs has been seen, and it has therefore been noticed, that biological fitness only rarely determines social position; but whether this custom *that neglects natural aptitude* is sociologically scientific or not has not been inquired into. It is quite clearly understood, owing to it being the general habit of society to regard the social stratum which an individual is born into as the guide to that individual's after development, that we have come to value the collective rather than the individual method of selection, speaking of wealthier and poorer classes, cultured and uncultured society, professional, mercantile, trading, artisan and labouring people, as if these *collective* terms had a true *individual* value; yet we fail wholly to ask if this collective standpoint is not a *fundamentally* faulty one, which the sociologist ought to resolutely oppose.

As a matter of fact, no two individuals are ever exactly alike, no family is ever homogeneous. One brother in a household may be intelligent, and another stupid; one industrious, and another lazy; one physical and primitive, centering his whole thoughts and feelings on sport, cricket, golf, football, or out-of-door employments; another, mental and advanced, being drawn mainly to mind realities. Sisters and brothers may differ widely, the sisters inheriting from one group of ancestors and the brothers from another. To assume, therefore, that either the collective family or the class status of the individual is a real practical test of such an individual's capacity is obviously illogical; yet we do

not consider what alternative to this is available. Did we do so, we might find ourselves compelled to adopt, as the only scientific position open to us, a type system founded upon the accurate grouping of individual bodily forms, as the only sound index to be discovered of their individual characters; or, shortly, be compelled to accept an individuological basis for our sociological superstructure. That there is no such basis in existence at the present time is, however, self-evident.

(3) INDIVIDUOLOGICAL MATERIAL.

In this section I wish merely to point out that sufficient evidence is now available to enable sociologists to commence an individuological survey, and to demonstrate the sociological direction in which such a study must tend, by showing that there is reason to believe that development of the human form is the general accompaniment of social evolution, and therefore presumably, in part, at least, its cause.

The material may be grouped under four headings:—

- (1) Evidence as to the completeness and permanence of individuality in man.
- (2) The presence of types of mankind in society, and their causation.
- (3) Evidence of selective agencies acting on these types under social conditions.
- (4) Relation of individual types to social formations.

(1) The *completeness* of individuality is established by a study of the degree of co-ordination of different parts of the individual organism to each other, which demonstrate that man is, in this respect, the most individualised of all animals; its *permanence*, by evidence that proves that bodily tissues preserve throughout life their characters, and that the individual preserves his physical and psychic individuality during the whole of his existence. *These conclusions are now admitted.*

(2) The presence of types of mankind in all social organisations which can be classified, and their causation, is not, however, so generally recognised.

It will be said that though facts exist which prove

both the existence of individuality and its permanence, yet individuals are so diverse in their various characteristics as to be unclassifiable, and, therefore, from the sociological point of view, cannot be studied to advantage; that each individual, being unique, is not groupable, and therefore no sociological science could be founded upon such an individualological basis.

That this is not a well founded contention may, I think, be easily proved. While it is unquestionable that each individual is in certain minor but important details of his or her nature unique, yet this uniqueness is not sufficiently marked to prevent classification of larger differences, and the grouping of one individual with other individuals who are similar on these lines. Thus, however much unlike one woman is from another, yet all women, who are not abnormalities, have certain physical and mental similarities that are common to all women as women, and which distinguish them from men. In like manner, a large brain and a large brain-case (cranium), with a face small in proportion to it, are characteristic of man, and of civilised man as compared with barbaric man; and other physical features connected with the erect human bipedal condition can also be enumerated, and these are correlated with human psychic qualities. Colour differences are also observable, as are others of massiveness of structure, height, etc. These features are classifiable, whether they have been classified or not does not affect the question, for they are real and permanent distinctions, and therefore must be significant. There is, further, reason to connect sex, mind, height, and perhaps colour differences with gland structures, so that the reality of these distinctive anatomical and psychic peculiarities is supported by physiological science. Moreover, sexual and mental feelings and desires, and probably others not yet recognised, have unquestionably been enormously powerful influences that have modified social development. Commonly accepted facts, therefore, prove that some individual characteristics are both classifiable and important.

(3) That selective agencies acting upon individual

citizens are at work (such as disease eliminations and enfeeblement, vocational and marriage selection) will not be disputed, though it may possibly be held that these have no social value. This view, however, cannot be settled by dogmatism; scientific research will alone prove or disprove its accuracy.

(4) Lastly, if individuals are possessed of permanent characters, if they do fall into types which can be grouped and studied, and if there are selective agencies at work, is there any further evidence to suggest that the individual type corresponds to the social formation?

In Part II. I hope to offer sufficient material to make it probable that some relation does exist; and if this be the case, then the establishment of an individuological basis for sociology is only a matter for time and patient investigation to accomplish. Should more detailed effort fail to support this connection such labour will not have been in vain, since it will have proved either that sociology is not a science—and, from the uncertainty of the phenomena that it embraces, can never hope to be one—or if a science, one that is governed by quite other principles than chemistry, biology, astronomy, and modern physics, in that its unit (*i.e.*, the individual citizen) is not the central point of research, as the atom, the cell, the stars and planets, and electrons respectively, are in other sciences.

Close scrutiny may reveal errors in the position that I have here outlined, difficulties that I have underestimated, objections that I have failed to realise; but if this individuological basis be a wrong one, what other alternative is left to us?

Locality does not explain the social organisation of man any more than it explains the social organisation of other animals, though it may have had, and, I think, has had, a powerful subordinate influence. In 1899, I pointed out that it is the struggle *between living* organisms that has led to biological evolution, and not of living forms with a non-living environment; and in man it will, I believe, be found that it is the human environment directly and mainly,

and only indirectly the animal, vegetable, and inanimate surroundings, that has caused his social evolution.

If the view here presented be even only partially sound, sociology will consist, in its greater aspects, of studies of human types and their social groupings, and of methods designed to consciously and unconsciously guide individuals towards social ends; hence, the selective influences of disease, industry, and marriage will form the principal part of sociological research; and the systems of slave, caste, class, and type grouping will be examined in order to discover which one of these is best suited to modern progressive life.

On such a foundation some such temporary superstructure could be erected as the following:

(4) SOCIOLOGICAL SUPERSTRUCTURE.

(a) Biology makes it probable that to develop an individual in accordance with the bent of his or her individuality, is likely to lead to better and more lasting cultural results than to attempt to disregard such individuality. This view is steadily gaining ground among educationists. On an individuological and sociological basis, this aptitude of the individual has also a social value. In a suitable environment, which does not favour acquired degeneracy, a healthy child if healthily environed tends to grow into an adult *individuality*, with individual desires which will tend to find realisation, by individual choice, in a suitable occupation, and in a suitable marriage; and this choice will be the *natural* outcome of previous healthy biological development unretarded by education.

(b) Industrial and cultural opportunity would allow this natural choice to assert itself. Healthy talent-selecting struggles would result, and, from class surroundings coming to have a true individual value, marriages based on love of a kindred individuality, rather than physical lust or mercenary motives, would result. This would lead to *natural* occupational and domestic groupings, and a socially efficient and an individually healthy nationality would be favoured.

(c) Such marriages would raise the moral tone of the individual citizen, and therefore improve the general social standard; while, as a result of *unconscious* selection in representative class circles, marriages of efficient individuals with efficient individuals would be favoured, and, through failure, the inefficient would be discouraged. Thus would arise, through type, vocational, and marriage opportunities, newer generations—children chiefly of selected parents—which would in their turn evolve still higher social atmospheres that would again select those most fit for parentage.

Social evolution being due to the natural tendency of all individuals to group themselves according to their natural aptitudes and natural tastes so as to found groups or classes, which at first survive because of their social value and efficiency, and later partly by organisation and control of social resources; and social devolution being due to the not less natural tendency which causes these same groups and classes to become closed combinations of individuals acting selfishly for their own aggrandisement, so that inefficient caste dogmatisms are substituted for efficient class ideals, it is the task of the sociologist to devise means by which the former tendency can be checked and the latter favoured.

Probably one of the best means of accomplishing this end is by the persistent attempt to raise the whole social condition of the nation or state to a more human level; and this necessitates a continuous hygienic reform in the surroundings—increased educational opportunities for, and increased vigilance against anti-social action on the part of the lowermost strata of society. By this means an increasingly keen competitive mental struggle will be fostered by the desire of the best members of the lower strata to displace the worst of the higher, and thus exclusive caste organisation, with its attendant corruption, would become increasingly difficult to maintain. Selective influences will not, as it has been claimed, be checked; but their character will be changed, a mental-selective test rather than a physical-barbaric one being imposed. The lower types of human beings, rather than the higher, would thus tend to be eliminated—by diseases

resulting from failure in life, by results of their own brute excesses, by imprisonment, retention in asylums, inability to marry and support a family, and other causes. *A natural unconscious environmental eugenic selection* would thus be established as a result of applying such sociological principles to life as would largely render unnecessary conscious state-controlled eugenic effort.

The difference in outlook between this view of sociology and the older ones may here be briefly stated. Past social effort has been directed, and in large part rightly directed, to faulty surroundings of the individual; but it has been largely inanimate surroundings that have been considered—defective drainage, damp houses, narrow streets, low wages, deficient means of locomotion, etc. If the view here outlined is correct, these efforts, though useful, are quite inadequate. The problem to face is a larger one, not primarily the non-living but the living environment.

Why are nineteen out of every twenty slum-inhabitants fairly content with their lot? Why do men go to public-houses when their homes are often more comfortable? Why is it that cheap literature of good quality is so little appreciated, and that the respectable navvy will spend five, six, or even seven shillings weekly on beer and spirits to drink, and one shilling to two shillings on tobacco, but not one single penny on mental food other than that which is sensational, physical, and evil? Why is it that there are thousands of men and women in every large town who *are satisfied* to live under the most unhygienic and indecent conditions? Why is it that some boys and girls, often in spite of the best efforts of their parents, are idle at school and grow to be men and women who *hate* work and will not work except from compulsion? As individuals are different physically, so also are they different mentally; and to answer these questions we must study, not so much the homes of such people, but the inhabitants, their desires, and their methods of living. In short, we must found our work upon an individuological rather than upon a street- and house-designing basis.

If this individuological interpretation be accepted, sociological science would become in one sense a post-biological study; the alternative to this is a post-geographical one. Every sociologist must, it is true, study man and his non-human environment, but to one or other of these investigations he must ultimately give precedence. Either, therefore, the human organic environment is the great vital factor for sociologists to realise, or the inorganic is. One or other must be subservient. If the latter, then the importance of inanimate surroundings will make the investigator concentrate most of his attention on climatic and industrially favourable situations, and on the architectural details of city or country topography; he will study urban and rural relationships under the belief that men and women are moulded or affected *by the things rather than the beings* around them.

If, however, collective-man is assumed to be the active power, then the existing types of citizens and their numerical proportions to each other in each tribe, nation, state, or empire, and their adequate or inadequate representation will be likely to determine the character of the social formation.

It is the imperative need for facing these alternatives, and realising the consequences to sociology that must result if the wrong study is chosen as its guide, that I would ask you to consider. On the one hand, there is the view that the nature of the climate, the physical characteristics of the soil, the geo-political position of the country, are the factors which make a nation great or small, significant or insignificant; on the other, the belief that race and individual character differences are the more important elements, and the inorganic surroundings largely the conscious selection and result of the living activity of the men and women that live in them. These views are mutually exclusive: either massed-man (later grouped-man) is strong, and nature and the influence of the products of past human activity weak, and are valuable only as their *appeal* to him is accepted; or, he is largely the product of what surrounds him, and is modified accordingly. The whole weight of biology supports the former view, and the evidence in favour of the latter has

never been critically examined. Which belief are we as scientific sociologists prepared to accept?

It is not a question, however, of rejecting either environmental or human studies, for the need of both is generally admitted; but simply which group of factors is the active and which the passive one, and which must therefore be regarded as the dominant sociological aspect for the sociologist to be directed by. It is this alternative that I would put forward for your consideration, pointing out that the individuological outlook has for some reason never received the attention that I think its merits and claims deserve.

II.

The main line of argument followed in Part I., to the effect that sociology should be founded upon individuology, rests on facts of such wide acceptance that little further evidence is required beyond that which is already known. Either the inferences that I have drawn are inaccurate, in which case they will be rejected as being an imperfect interpretation of the phenomena considered, or they are accurate, and, if so, my conclusions will be accepted and this much of my general contention will receive recognition. Because on this point my appeal is to the logical rather than to the evidential side of the question, the accumulation of further evidence will not strengthen the position.

The second assertion, that sociology is not based upon individuology, is obviously true and needs little further comment. It is generally admitted, however, that all talent in the State should as far as possible be utilised. It is sufficient, therefore, to produce evidence to prove that a large amount of wastage occurs, to make it probable that some kind of individuological survey is desired. This point I hope to consider more fully on a later occasion, showing how much individual capacity is wasted in all directions, but as few people of experience will dispute this general statement, I must content myself with observing that my experience as a medical man has enabled me to find even in the most degraded localities two or three individuals in

almost every large street who had no social outlet for their powers, and who were in natural capacity far above their surroundings.

There, therefore, remains to review in briefest manner the evidence as to the possibility for an individuological basis of sociology and the differences of outlook that such a basis would give to the sociological superstructure raised upon it.

(a) *Permanence of Type* is established by the following facts:—

<i>Germinal Tissues</i> persist through an indefinite number of generations almost or quite unmodified. This proved by fact that mammalian tissues remain mammalian; avian, avian; insectal, insectal, etc.	In spite of a common blood or other circulatory medium.	No evidence therefore that change of type is directly caused by environment.
<i>Glandular, Muscular, Nervous, Osseous Tissues</i> retain their characteristics throughout the life of the individual and are of a more or less permanent nature in the race.		

Researches on "Twins," "Finger-prints," by Galton and others show that the individual retains his physical and mental individuality throughout life.

(b) *Co-ordination* established by facts that prove that:—

- (i.) Thymus, Thyroid, Genital, Pancreatic, Pituitary Glands are all intimately connected with the growth and activity of the whole body.
- (ii.) Salivary, Gastric, Pancreatic Juices are all related to each other; and that activity or sluggishness of one affects the other digestive functions; and that a whole series of chemical substances belonging to the purin group have been found in related stages in different parts of the body.
- (iii.) Organismal anti-toxin reactions to diseases are manifested.
- (iv.) Local Diseases affect the organism generally.

Disorder of local supra-renal gland causes a general disease, Addisons			
"	"	thyroid	" " general diseases, Myrodema, Exophthalmic Goitre Cretinism
"	"	pancreatic	" is associated with Diabetes
"	"	pituitary	" " " Acromegaly
"	"	female sex	" " " Inversion of Sexual Characters
"	"	male sex	" " " " "

- (v.) Extirpation of supra-renal, thyroid, and other glands causes death.
Extirpation of male or female sex glands causes change of sexual characteristics.
- (vi.) Nervous system in vertebrata exercises a general control of whole organism.

(c) *Presence of Types and their Causation.*

Works of reference dealing with anomalies of the human body usually recognise the following divisions:

(1) Mental; (2) Sexual; (3) Height; (4) Colour; (5) Developmental abnormalities, and also obese and lean states of the body. Within this abnormal range of variability are found normal corresponding tendencies which may be classified as follows:—

(1) <i>Mental.</i>	Abnormal	$\left\{ \begin{array}{l} \text{Idiocy} \\ \text{Epilepsy, etc.} \\ \text{Feeble-mindedness} \\ \text{Habitual criminality} \end{array} \right.$	Normal	$\left\{ \begin{array}{l} \text{Genius} \\ \text{Talent} \\ \text{General capacity} \end{array} \right.$
(2) <i>Sexual.</i>	„	Hermaphroditism	„	$\left\{ \begin{array}{l} \text{Undifferentiated} \\ \text{Differentiated} \\ \text{Asexual} \end{array} \right.$
(3) <i>Height.</i>	„	$\left\{ \begin{array}{l} \text{Giantism :} \\ \quad \text{acromegaly} \\ \text{Dwarfism :} \\ \quad \text{achondroplasia} \end{array} \right.$	„	$\left\{ \begin{array}{l} \text{Tall} \\ \text{Short} \end{array} \right.$
(4) <i>Colour.</i>	„	$\left\{ \begin{array}{l} \text{Albinism} \\ \text{Pigmentism} \end{array} \right.$	„	$\left\{ \begin{array}{l} \text{Fair} \\ \text{Dark} \end{array} \right.$
(5) <i>Developmental</i>	„	$\left\{ \begin{array}{l} \text{Infantilism} \\ \text{Senilism} \end{array} \right.$	„	$\left\{ \begin{array}{l} \text{Youthfulness} \\ \text{Matureness} \end{array} \right.$

In practice, I have found this classification easy of application and capable of being used for all individuals. With regard, however, to mental and sexual capacities there is much evidence in favour of progressive evolution in progressive races, and it is this evidence that is of sociological significance.

The mental differences of the individual may be studied from six aspects at least. By investigating the relation of (1) the higher apes to man; (2) savage races to civilised; (3) classes in one civilisation to each other; (4) the different periods of development in a nation to each other; (5) of succeeding nationalities and empires to those that had existed before them; (6) of the types of individuals

attacked by disease. Each of the six points to the conclusion that man is advancing, passing out of the paleogenic and mesogenic stages into neogenic ones, from the stooping, physical, animal state to the erect, mental and human existence.

It is coming to be more or less widely accepted, and indeed it is little more than an obvious fact, that differences of sex have grown with growing civilisation. Beginning with a more or less undifferentiated savage, masculine type of woman who, except for primary sex differences, closely resembled man in her bodily form and mental character, and a savage type of man with many womanly features, the modern womanly and manly individualities have been slowly evolved. Any well illustrated work on anthropology affords striking evidence on this point. The faces of the men and women are often so alike as to make it quite uncertain to which sex they belong, while the smaller hips and more muscular limbs in the woman and often the fuller breast regions in the men make the resemblance remarkably close. In the more civilised races, probably as a result of more settled social conditions, a growing differentiation becomes manifest, and persistence of this undifferentiated state is now alluded to as a state of femininism in the man and masculinism in the woman.

Differences of height, colour, mass and degree of development reached, remain, but I shall not touch upon these nor consider further in this paper sexual and mental differences. I shall merely content myself with noting that the brain-cells have many resemblances to gland-cells in their resting and active stages, that they possibly throw off products into the circulation which effect changes in the form and development of the body; that sex certainly, height probably, developmental differences unquestionably, and colour differences possibly, are all related to gland activity, therefore type studies founded upon such phenomena are possible.

The accompanying drawings* of these types, on which

a few words may be said, will help to make my meaning clearer.

All the studies are intended to be broad generalisations of types that unquestionably exist, and I have endeavoured to make them as accurate as possible. They were kindly prepared for me by Miss Minna Tayler, and are simply charcoal outline sketches. The plan we adopted was briefly to construct from numerous photographs, from measurements which I had collected and other sources, figures that suggested to me *most vividly* the differences of form that I, as a medical man, had observed in my patients. The material that I have collected is far too unwieldy to be reproduced here, and while the impression is in the main true it could not from the nature of my experience have been worked out in detail capable of statistical treatment, for I had to make my notes after my patient had left me and before I examined another, and for medical reasons the examination necessarily varied with the disease. All the cases selected were only indisposed and not seriously afflicted with disease, and all were under thirty years of age and had reached maturity, the most common period being from 20 to 25. By this age exclusion I was able to remove all cases of stoutness due to unhealthy bodily states and to make the comparison of differences of form more reliable.

The paleogenic* types have, of course, been largely constructed from anthropological data already in existence. It is, however, very surprising how near some of the lowest individuals of the English and other civilised races approach this older form. The mesogenic womanly illustration was obtained by making a detailed study of picture galleries such as Hampton Court, the National Gallery, etc., and selecting those painters that belonged to the sixteenth, seventeenth, and eighteenth centuries as the only evidence available for the study of the form in the middle period of European civilisation. No study of nude man is possible under these

* Term suggested by a *Nature* reviewer in reference to a previous work of mine, "Aspects of Social Evolution."

conditions, for man was not a subject for artistic treatment during these times. That a corresponding mesogenic man did exist is proved largely by the similarity of facial form of the man and woman of this period, but the figure studies are not sufficiently numerous to be investigated for common characters.

The neogenic illustration was obtained largely direct from life. It is really remarkable, if one is in the habit of observing any large number of individuals daily, to note the differences that present themselves. That there is an increasing number of individuals who are born with neogenic characters I have personally no doubt whatever, and that at present we understand very little about their needs either from a medical or social point of view I am equally convinced. The studies of woman on the psychological side by Laura Hansson, and the fact that the neurasthenic woman (not the hysterical nor neurotic) belongs almost exclusively to this neogenic type, show convincingly that the newer mentally endowed woman is even less understood than the newer man.

The asexual studies were made from men alone, and in all of them I had evidence of late growth, late sexual maturity as well as the characteristics here portrayed. The long-limbed and short-limbed types were obtained by studies of giantism, acromegaly, and from actual causes, and the slight and massive forms, are matters of daily observation.

(d) Selective Agencies.

Looking at the selective influences that affect the lives of the great majority of citizens of any well organised national group it is clear that these may be studied under three main divisions: (i.) Disease, (ii.) Marriage, (iii.) Vocation.* All the important elements of the problem are, I think, grouped under one or other of these heads.

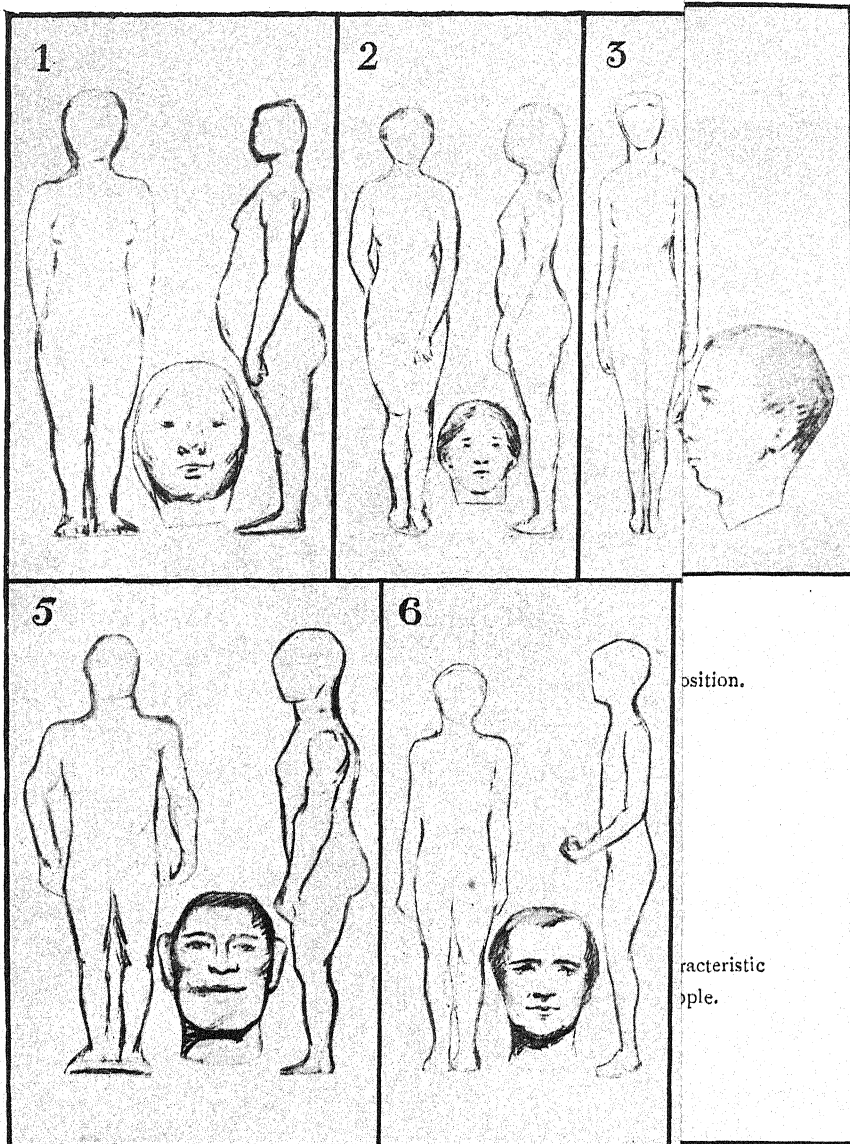
* Mortality from war in the modern states affects mainly the military class and can therefore be considered under Vocational risks, and Childbirth dangers can be studied under Marriage influences.

(i.) *Disease.*

To look at the problem sanely, it is first necessary to free ourselves from the many gratuitous, and in some respects disgracefully unscientific, assumptions that have been made in regard to the subject of degeneracy. It has been assumed that because a type is subject to a particular disease it is therefore degenerate. In most cases it is true the tubercular disorder has been the one complaint most frequently mentioned as a disease that is supposed to reveal some constitutional taint, though of late years cancer has also been treated to a similar method of ostracism. The implied assumption is, at least for these two diseases, that susceptibility to such diseases is proof of constitutional failure. But if this is true of one disease why not of others? And as every individual is individually predisposed to one or more diseases it is evident, if one pursues this argument to its logical termination, that all individuals are degenerate because all are predisposed, an obvious *reductio ad absurdum*.

Again, it is asserted, without one single supporting fact, that evidence of insanity in a family should be regarded as testifying to some degree of degeneracy in the family, and be in some way a bar to the marriage of its sane members. Insanity is, of course, evidence of individual disorganisation in the individual affected, but its hereditary significance depends wholly upon the question whether the insanity was or was not dependent on sufficient environmental provocation. An individual of highly organised mental capacity and desires would be extremely likely to become mentally enfeebled or diseased as a result of being compelled to live in slum surroundings; but the fact of his insanity would be proof in this instance of his inborn evolutionary capacity as compared with the typical slum inmate who remained sane.

Without, therefore, unnecessarily multiplying instances, it may be stated that *neither susceptibility to disease, nor proof of the existence of disease, nor any disorder of functioning is of the slightest importance in the study of inborn racial*



degeneracy unless it can be shown that failure has resulted from faulty individual capacity and is not due to environmental defect.

Again, a large part of the evidence in favour of degeneracy has been based upon the assumption that deficient height and weight in the individual is proof of unsatisfactory individual and natural conditions. But the whole point at issue is the difficulty of determining what is deficient height and what deficient weight. Thus two men of six feet in height, that I am acquainted with, that vary less than an eighth of an inch between them, both thirty years of age, and both having been to my certain knowledge in good health for the past five years, and whose weights have not varied more than two or three pounds during this period (this constancy of body-weight being one of the best tests of health that medical men possess), both doing their work easily and neither being exceptionally fat or thin, yet differ in their respective weights as much as 2-stone 12-lbs. On what principle are we to assume that either of these men is unhealthy or degenerate? Both were well cared for and well fed during early years, therefore this is not even an acquired difference; if nearly three stone can be admitted as a possible healthy divergence in weight between individuals of the same sex, height, and age, it is hard to see what value is to be attached to the weight test as at present applied, as evidence of national or individual deterioration. Different rates of growth make the same test quite valueless in children and adolescents. Height again is open to the same objections, and even asymmetry may be the result of a progressive quite as probably as a retrogressive change. Nothing less exhaustive than a detailed individual study based upon the one certain test of inborn capacity, to live healthily under *individual* conditions, will free our social studies from the present confusion, and for this a clear realisation of the difference between inherited and acquired degeneracy, such as the accompanying diagram outlines, is essential.

DEGENERACY.

INHERITED.	ACQUIRED.
Inco-ordination of speech " " bodily movement " " visceral activities " " special senses " " mental processes	Habit-Spasms. Disease-Degenerations (a) Syphilis, Gonorrhoea, etc. (b) Narcotics (alcohols, etc.) (c) Phthisis and other tuberculous states
<i>Reversions.</i>	
Psychic (a) Appetite-dominance (b) Nomadic anti-social tendencies (c) Nomadic anti-domestic tendencies (d) Feeble-mindedness (e) Imbecility (f) Undifferentiated sex feelings	Educational Distaste for culture Loss of individuality " manliness " womanliness " vocational desire " domestic desire
Physical. Sexual (a) masculinism (b) femininism (c) asexualism (d) mongoloid, microcephalic anthropoidal states	Occupational By avoidable dangers and anti-social selection By unavoidable dangers and social selection (Resulting in elimination by disease of constitutionally unfit.)
Defects. (a) Cretinoid conditions (b) Infantile " (c) Early senile " (d) Fatty, Muscular, Visceral, Nervous, Glandular and other tissue defects.	Domestic Loss of Home desire (a) through faulty marriage (b) low wages (c) immorality.
A future possible menace. 1%—3% of population. Individuals of this class tend by their defects to become naturally sterile. Uncertain therefore if a special remedy is required.	A certain present danger affecting large majority of population. A study of type fitness affords only hope of remedy for such evils.

The more closely inherited degenerations are studied and compared with acquired degenerations, the more it is rendered evident that the latter group is far the more im-

portant one, and it is seen that remedies available for the acquired dangers operate also against the inherited.

Three groups of diseases account for an enormous comparative mortality in adults and children, and, as affording a clue to the selective influence of some disorders, may be alluded to here. (1) Diseases due to immoral life; (2) those resulting from narcotic indulgence; (3) consumption and other tubercular complaints. The first two, those due to immorality and intemperance, can be partially remedied (*a*) by improving social conditions so that surroundings will be deterrant to individuals inclined to give way to excess, (*b*) by giving every opportunity for persons with these tendencies to sink to the lower grades of society so that they will be socially less favoured than more self-controlled citizens, (*c*) by aiding all higher individuals, by means of progressive laws and customs, to attain early in life opportunities for realisation of their marriage and vocational ideals. The third group (tubercular) can only be combated by improved hygiene. If remedial measures on these lines were carried out disease would attack mainly those of anti-social character.

But as the matter now presents itself, the higher type is often eliminated by lower surroundings, and this is clearly seen in all consumptive disorders. It has long been recognised that two types of individuals are attacked by this disease, the heavy, strongly built individual and the slight, active, mentally alert person. The reason for these two persons being selected is evident. The strong, physically-desiring, large-faced, small-headed patient has drunken habits, is intensely sensual and immoral, and gives way generally to physical excesses; he is a natural barbarian, who would thrive under barbaric conditions, and only becomes consumptive *late in life* as a result of his own animalism and his town surroundings. This paleogenic citizen is of diminishing use to society, and his elimination is already being imperfectly accomplished by his segregation in asylums and prisons. The refined mental type, on the other hand, is diligent, social and self-controlled; and in a hygienic environment such

people live healthily, and raise the mental standard of the nation by their pursuit of mental ideals. It is the barbaric anti-social conditions that still persist—low wages, high rent, long working hours and bestial surroundings—that cause the high mortality amongst them. In this question of disease elimination, as in other social problems, the issue turns on the question of type. How are we to treat the paleogenic and the neogenic forms in our midst? Because the neogenic individual has a more highly developed nervous organisation he is more delicately organised and therefore more susceptible to unhygienic influences and dies early in life if subjected to them, leaving few children to perpetuate his characteristics, and these are early affected by the slum features that destroyed the parent. While the big-faced, contented, sleepy, paleogenic type of baby often thrives when bottle-fed on sour milk and in the dirtiest surroundings, the large-headed, restless, excitable, neogenic, child dies of diarrhoea, convulsions, or consumptive brain disease. Later, at school, this quick type is foolishly pressed forward, and consumptive disease again frequently very early destroys a promising life; acute rheumatism leaving heart disease which terminates fatally is also an enemy to this brighter, more human individual, and in all these cases death tends to result before maturity is reached and therefore before parentage. The tough loafer's child on the contrary, picking up crusts of bread from the gutter, decayed fruit from heaps of refuse of costers' leavings, survives like an animal on food that is little better than offal, becoming later a young hooligan, marrying early, or perhaps not marrying, but in either case begetting many children; he lives till forty or fifty before he dies a victim to alcoholic or syphilitic disease or consumption. You can eliminate this paleogenic type by one means only, namely, making the environment increasingly civilised in its character, and making immoral, drunken, idle and dirty habits punishable. The wildness of his nature will, if these social restrictions are enforced, force him down to a lower stratum of national life, where occupation is more difficult to obtain and where prostitution, itself being restricted, instead of parentage, will

cause him to become sterile. It is this failure to realise that the drunken individual is able to, and does, bring into existence a large family to perpetuate his type before he is destroyed by alcoholic influences that, in my opinion, renders Reid's view untenable; though I feel that his insistence on the influence of disease is both right and in some senses novel. My view and his may be thus compared:—

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- (1) Progressing social environments *necessarily* increasingly protect physically while they expose the individual mentally to greater dangers.
- (2) The lowermost areas of society are freest from these physically protecting influences, hence neo-genic types are destroyed, and paleogenic survive in slum surroundings.
- (3) With higher social conditions, the diseases testing physical endurance are destroyed by hygienic developments, but others arise that test *mental* tenacity and strength.
- (4) Heredity and environmental selection the chief factors in race evolution.
- (5) Slums favour barbaric types and are social and individual evils.
- (6) Education may develop or spoil but it cannot create capacity; this is innate and of paramount importance.
- (7) Social opportunity based upon a relative as well as an absolute type fitness is an unconscious but efficient eugenic factor.
- (8) To some diseases all races have to acquire resistance, developing by selective elimination. (Reid)

REID.

- (1) Races through selection must acquire resistance to disease and narcotics. Disease not evolutionally significant.
- (2) Slum or conscious eugenic influence necessary.
- (3) Educative influences paramount in the human individual.

- (9) From others, progressing social nationalities have to be protected by hygienic precautions. These alone have an evolutionary significance. (Tayler)
- (10) The use of narcotics socially and individually dangerous and devolutional. Resistance to these cannot be individually acquired without mental deterioration, and racially only by survival of neogenic types.
- (11) Conscious eugenic restriction largely unnecessary and destructive of individual and social human ideals.

The problem of degeneracy and disease should therefore, I think, be approached from the hygienic side, and by raising the character of the environment so that it will select mental types and eliminate physical. In like manner, all the educational influences, occupational dangers and domestic evils which favour acquired degeneracy should be studied from the environmental aspect, and should aim at fostering through type opportunity, mental selection of the mental (neogenic) types of citizens. Disease becomes an evolutionary factor if vocational and marriage opportunities are increased, devolutional if individuals are compelled, by the accident of birth, to make vocational and marriage selections within the limits of the parental social status.

Type opportunity and class organisation favour social evolution, while the cause of national decadence is the degeneration of this grouping tendency, based upon natural fitness, into a caste tendency, based upon the natural self-assertive desires of those who have power and who strive to maintain it, holding their positions regardless of social efficiency. So that national decadence can be studied scientifically from this aspect alone. Some of the chief civilisations of the past and present periods may be roughly classified as follows :—

NATIONAL DECADENCE.

Akkads, Assyrians, Babylonians	-	-	-	cause unknown
China and India	-	-	-	Imperial and Industrial caste system
Egypt	-	-	-	Theocratic " "
Carthage, Athens, Rome	-	-	-	City " "
Sparta, Germany	-	-	-	Military " "
England, Japan, Russia	-	-	-	Feudal " "
France	-	-	-	Municipal " "
United States, Russia	-	-	-	Monopolist " "

The abuses of vicious living come, if this theory be correct, after caste organisation, which takes away the need for individual efficiency and are only indirectly the cause of national decay.

Type opportunity and class organisation on social lines should therefore be the ideals for the sociologist to uphold. That the trend of modern social science is to favour this type opportunity is evident from a study of works on this subject and from the practical effort that is being made to give, by means of scholarships, increased opportunity to poor scholars.

The scientific conception of type fitness has developed somewhat on these lines:—

- 1859. Darwin and Wallace. Competitive opportunity and unconscious selection the basis of organic evolution.
- 1887—1903. Gissing. *Feeling* of altruistic egoism essential to the realisation of the best individual capacity in the nation.
- 1892. Wallace. Equality of opportunity a necessary element in social evolution.
- 1894. Kidd. Equality of opportunity the basis of social evolution.
- 1898. Tayler. Individual educational opportunity the national and the individual ideal.
- 1904. Tayler. The conception of social type opportunity to be scientifically applied to educational, occupational, and domestic problems so that unconscious social selection shall take place.

One is thus led naturally, from the study of the selective influence of disease (its action being devolutional under caste conditions, evolutionary under class specialisations) to the two other selection influences, those of marriage and vocation.

(ii.) *Marriage*.* I was led to some conclusions in rela-

* I have not space to consider such marriage theories as those of Schopenhauer and others, though they have some historic interest.

tion to marriage by an inquiry that I started which proved abortive, but which showed clearly the fact that contrast marriages are quite rare among the poorer classes of the community; and, as these marriages result from individual choice (owing to greater freedom of sex friendship and less active social restrictions) more invariably than in any other part of the community, I have spent some time in investigating the principles upon which the choice appears to have been made.

For many reasons statistics are not obtainable; it is only long experience of life-habits of individuals that prove or disprove the wisdom of the choice that individuals make, and the rare happiness of perfect understanding that is evident in the truly happy and ideal marriage cannot be expressed statistically.

Broadly, however, there is a very close and generally happy relationship in the marriages of the poor; I should think, from my own medical experience, that they are as a rank much happier than in the middle or wealthier sections of the community. The faces of the men and women, and their humour prove this, as permanent unhappy expressions are a rarity. In six years' experience, after going through my case books, I can find only five completely incompatible marriages in which the man or the woman (in all my cases it has been the woman) has been acutely miserable for the whole period of their married life. Some individuals in these instances separate; usually it is the man who leaves the woman, but I have not been able to study such cases, as only one man or woman, husband or wife, has been under my observation. In the first instance, where they remained together, the man and woman have been absolute contrasts in all points except sex, the man in two instances being feminine, while the women have been uniformly womanly, but married to men unable to appreciate them. In all cases the man has been animal and brutal in body and mind, and the woman much above him, and this has been, I imagine, the chief source of the misery. In all cases the husband and wife have been contrasted in colour, one dark

and the other fair. I have seen one marriage* where a very dark woman has married a very fair man, and the result has been apparently satisfactory, but both man and woman are neogenic types, and are the same age, and the womanliness of the woman finds a natural response in the man's manliness. Of four very happy marriages that I have seen where the happiness, after some years of marriage, in each other's presence was extraordinarily perfect, all were of the same shade of colour, age, height, mental capacity, and sexual development, and the resemblance to each other was striking. It has to be borne in mind that a woman is naturally a little darker than a man, about four to six inches shorter, and these together with other sex differences are a measure of *sexual likeness of desire*, and must be considered sexually. Thus a man of 6 feet corresponds to a woman of from 5 feet 6 inches to 5 feet 8 inches, and would be tall for a woman of 5 feet 4 inches. A woman exactly the same shade of hair and eyes as the man is really fairer. In some measure also, allowance should be made for age, a woman of 18 corresponding to a man of 20, but this is modified by early maturity, which causes adult feelings and thoughts to be developed earlier than the years appear to warrant, and also by the fact that maturity when reached is much the same for both sexes, only great differences in age producing large differences in outlook.

The points which determine a real affinity between men and women can be classed under the same head as those that determine friendship, namely, those that promote sympathy. That is, likenesses of character, not unlikenesses, are the basis of sexual as well as nonsexual love.

The reason for the necessity of this harmony is a very obvious one; if a husband is fond of reading and a wife detests it, one or the other is sacrificed; if the one is refined and the other coarse, the marriage relation violates and violates terribly the feelings of the refined individual. This is why it is that differences in mental outlook in married

* I am of course considering extreme colour differences.

people of the poor are so seldom to be seen. Dark people are at times morose, sulky, and despondent; fair are quick tempered, changeable and hopeful. Just as it has been found that epileptics understand and can associate least harmfully with other epileptics, so among healthy minded persons you must have fair and fair, and dark and dark to understand each other. Again the passionate and sexually intense man or woman is usually miserable when married to one that is cold; and even in such slighter matters as food, it is necessary for health that both should have similar tastes, the "livery" husband who likes boiled food, soups with every trace of fat removed, will make the wife miserable who likes "tasty" fried or roast dishes. It is the harmony of likeness, not the discord of unlikeness, that is the governing factor in human love.*

The order of importance in these characteristics is from my experience as follows: (1) Neogenic or paleogenic mental likenesses. (2) Man and woman of same age from a few months or days difference, up to, but not exceeding four or five years. (3) Like sexuality, the more or less manly man married to the more or less womanly woman (this differentiation gives appearance of contrast). (4) Similar education. (5) Like colouring. (6) Like height. All these likenesses are very important factors, though they are differently combined in different individuals. (7) Occupation is not important, but it has nevertheless much power in affecting the woman; an "uninteresting" employment is very unfavourably regarded. The man's employment must interest both. Real harmony also makes a common racial and national origin *a necessity*. The normal marriage therefore is a harmonious one, and the degree of happiness is in proportion to the degree of similarity. With mental and sexual features, the happiness rises with the *development* of mental and sexual capacity. Great development of mind, especially if associated with great and equal sexual speciali-

* Since giving this lecture, I have noticed an interesting fact quoted by Hall in his work on "Adolescence," that Abel and Brinton have both pointed out that love in all languages signifies likeness.

sation, gives the harmony of aims that like mental capacity brings with the diversity and freshness of different points of *one* view which sex supplies.

There is another kind of marriage which I consider to be anomalous but not unhealthy, which is in a curious way corrective of extremes. A very tall man who has become unpleasantly conspicuous by his height may be so influenced by his unenviable notoriety as to acquire a dislike for his own characteristics, and as a consequence wishes to marry a very short woman. Little men, it is almost proverbial, marry big women, and feminine men masculine women, yet in these instances both the little man and the big woman admire size, and the feminine man admires a womanly woman though he marries a masculine or manly one, and the masculine woman admires a man more masculine than herself. These anomalous marriages are rarely wholly contrast marriages, as other points are harmonious and bring with them a common sympathy, but they are nearly always more or less commonplace, and particularly in those instances where the sexual basis of ideal married life is reversed. The large woman is never really happy with the small man, she would really have liked a man large enough to be big to her, to be her sexual equal, and the small man wishes really for the smaller woman. The masculine woman often tyrannises over the really feminine man, and under the best conditions their longing for a normal sex relationship exists. Only the man who is manly does not care for the masculine woman, and the womanly woman rejects the feminine man, and thus the masculine woman and the feminine man tend to approach each other. Below this anomalous or mutually corrective marriage is another kind that is abnormal.

Wealth, social position, coarseness, make all the ideals of no value. A man of forty marries a woman of twenty, their mutual outlooks are separated by a generation, their sexual ends are different, and there is no true comradeship. Second marriages usually belong to this class, and are rarely, if ever, happy in the highest sense of the word.

Three kinds of marriage therefore take place, the *normal* of like to like, the *anomalous* or corrective marriage, and the *abnormal*. The abnormal should of course be discouraged. It may be interesting to look at the eugenic effect of these marriages.

If a breeder wishes to secure a point in some animal, he mates it with some other that has the same character, the greater the similarity of horse and mare, cock and hen bird, bull and cow, dog and bitch, it matters not what animal to which it applies, the greater the chance of this point surviving. When there are many points in common, a new breed is produced. In the human individual this same principle must hold, hence the like to like marriage perpetuates its type, the unlike loses it. That is to say the normal marriage persists and is developed, the anomalous returns to the racial mean and is lost.

Looking at the matter more closely the problem may be stated in other terms: the most stable and the most universally shared qualities of the human race are the lowest, the most divergent are those that are highest in the evolutionary scale of development, hence the like to like marriage tends, by bringing more and more of the individuality of one into unity with the individuality of the other, to be progressive by enforcing what is individual and human in each. The like to like marriage tends to favour progressive racial evolution, the anomalous and especially the abnormal retrogressive. Hence the harmony that is *felt*, not reasoned about, in true love is eugenically justified by science, and under conditions which favour co-association of the sexes (but not co-education nor co-industrial effort), and the freest amount of mental acquaintanceship the truest love marriages, and therefore those that are eugenically most suitable are likely to be formed.

Put diagrammatically, the position may be represented thus:—

MARRIAGE.

Progressive Individual Development of Character.

Social. Domestic. One man. One woman. Domestic. Social.

INDIVIDUAL	3	Mental pursuits	Mental tastes	Very few men Monogamic marriage	Very few women Monogamic marriage	Mental tastes	Mental pursuits	3	INDIVIDUAL
	2	Mental moods Physical moods		Many men Many women Monogamic marriage, polygamous desires		Mental moods Physical moods		2	
	1	Physical desires		Any woman Any man Abnormal civilised but normal barbaric		Physical desires		1	
EUGENIC	1	Physical desires		Sex relationship. Low physical selection		Physical desires		1	EUGENIC
	2	Moods		Rather higher physical selection, low mental selection		Moods		2	
	3	Mental tastes		High mental and physical selection		Mental tastes		3	

Progressive Race Development.

Breeds are obtained by selecting *same* characters in *both* sexes. The normal marriage is based upon this principle, therefore conscious eugenic effort unnecessary.

Space does not permit me to enter into the interesting question of vocational selection, but I would point out that here also normal, anomalous and abnormal conditions exist. The *normal*, where inborn capacity and educational opportunity and vocational position harmonise. The *anomalous*, where caste, "society" aims, are overborne by inborn will to escape them. The *abnormal*, where the individual is wholly sacrificed.

(e) The last topic is also too long to be dealt with more than diagrammatically, but the correspondence that is here evident will at least, I feel convinced, make out a *prima*

facie case in support of my contention, that social organisation should be studied in relation to type evolution.

PALÆOLOGICAL.		MESOLOGICAL.	NEOLOGICAL.
<i>Man.</i>	Palæogenic form	Mesogenic.	Neogenic.
<i>Social Organisation.</i>	Slavery (ancient nations)	Caste (mediæval nations)	Natural classes (modern)
<i>Habits.</i>	Physical. Feasts of Mars and Venus, Greek and Roman celebrations generally, and in older nations. Many of these and like customs preserved in labouring classes of to-day.	Restrained physical celibacy, the church as an opponent of force.	Mental. Science, Music, Literature are taking position as predominant social ideals and having mental words and phrases to represent them.
<i>Marriage.</i>	Polygamous and indiscriminate.	Monogamous but for parental reason.	Monogamous for mental feelings.
<i>Occupation.</i>	Physical.	Physico-mental.	Mental.
<i>Ideals.</i>	Physical but mentally visualised.	Physico-mental.	Mental.
<i>Art.</i>	Architecture, beam form (wood imitation). Body form most studied.	Arch or dome. Body and face both studied.	Unborn. Face-form predominant.
<i>Music.</i>			A modern growth.
<i>Science.</i>	Causal. Inanimate nature and physical part of human organism studied.	Observational —————>	Experimental To living, mental, & human phenomena.
<i>Poetry.</i>	Physical.	Physico-mental.	Mental.
<i>Religion.</i>	Material and animistic.	Physico-mental, anthropomorphic.	Mental, supra-human.
<i>Life.</i>	Growing more complex and difficult.		
<i>Genius.</i>	In older time periods almost certainly inferior, but on account of simpler material produced more perfect work.		

I am, in conclusion, deeply conscious of the imperfections of my paper, and would plead in excuse the shortness of time at my disposal, and the fact that I mean it to be suggestive rather than authoritative. I have endeavoured to raise issues rather than settle them, to point out that there is something to be said for the individuological interpretation of sociology, and if I have done this sufficiently to make other students, like myself, feel there are clues worth pursuing, I shall be more than content.

DISCUSSION

THE CHAIRMAN SAID :

I am sure we must all be very thankful to Dr. Tayler for the suggestive lecture he has given us, and for the valuable investigations of which he has been speaking during the latter part of it. I must say if I had to decide which is the more valuable part of the lecture, I should choose the latter. In fact, I do not quite see the connection between the earlier part or the theoretical foundations of sociology, and these investigations which are valuable in many different sociological constructions. A great many of these sociological super-structures are common ground to various sociological schools. To take an instance, Dr. Tayler put forward as a new discovery, due to his method, that there was great capacity among the poor; but if you go out into the street and ask the first person you meet whether Bunyan and Burns were not amongst the greatest men of their times, you will get the answer "yes," quite apart from any scheme of sociology. Again, in claiming that the study of sociology must begin with social units, a comparison is made with biology, in which, it is asserted, the study of cells is the necessary commencement in order to place it on a scientific foundation. But, if we look at the history of the science, we find that biology had arrived at an advanced stage before the study of cells was possible. As a matter of fact, the study of cells would have been impossible, if it had not been for the previous study of tissues.

One fact that struck me very much in the earlier part of the lecture was that it seemed to deal only with social static, whereas the peculiar characteristic of sociology as compared with biology is the existence of social dynamic, which deals with the most interesting problem of

the science, the *development* of societies and the progress of civilisation. It is said that the individual is not pliable; but his intellect at all events is pliable to this extent, that one generation has entirely different beliefs to those which previous generations held, so that those who lived under the Roman Empire, and in the Middle Ages, and in the present day, have different views of the world around, and are occupied with different subjects of thought. That cannot result from differences between the individuals, but must arise from social differences, common to all of the same generation. In fact, man is first subject to the cosmical environment, then to the biological, and then to the social, on which depend his thoughts and his economic position and the life he lives. This general social environment reduces the effect of the peculiar environment in which any particular individual finds himself.

The changes which are continually taking place in the social organism—the result of many causes, but especially of intellectual and material accumulations, the increase of wealth and knowledge—produce a changed social environment, with which existing institutions must be brought into harmony. There must be a continual attempt to adapt old institutions to a new environment. But in this process, you will have institutions which are not exactly adapted to their environment, and the result will be those social difficulties to which the lecturer has alluded. When Dr. Tayler objects to such expressions as the “wealthy classes” and the “industrious classes” because some individuals have the characteristics of one of these classes less strongly marked than other individuals have, while some combine the characteristics of both classes, he is really objecting to all classification, always a logical artifice to bring our ideas into order. Nature is continuous, and we must mark off our compartments where the line is thinnest, or the differences are most striking and important. Let us take other classes—Englishmen and Frenchmen for instance. As you walk along the streets of some foreign town, you see you are amongst a new class. Some may be more like Englishmen than their fellows in this point or that, but you recognise that there are general differences, which you must consider before you can take into account the special differences between individuals. You want first to get at the most general environment. The natural order is, first the cosmical environment; then the biological; and then the social. And then you can go on to consider the effects, whether small or great, of these environments on individuals. The lecturer has brought

forward many points that are biological rather than sociological; and it is no doubt true that the more perfect biology is, the easier sociology will be. But still the great problem of sociology remains—the investigation of the laws in accordance with which society develops.

REV. J. HAND

Asked the lecturer what would be the average of the kind of individual he had referred to as having no special merit whatever. Would he, for example, be up to the average Hindoo, or Japanese, or Chinese, or American Negro? And again, if he considered the degeneracy due to poverty or want of work, or drink.

DR. SALEEBY SAID :

That Dr. Tayler had said very little about the marriage of like individuals, but it was interesting to note that he confirmed the conclusions arrived at by Professor Karl Pearson, though on different lines, that the successful marriage and the marriage that counts in the formation of species, is the marriage between people who resemble one another. Dr. Pearson called it homogamy, and laid much stress on it. His work was a completion of that done by Darwin in relation to sexual selection, and it applied not only to human beings in various countries, but also to certain animals; so that it seemed to be a universal principle. He wished Dr. Tayler would say more about this preponderance of marriages between individuals who were similar in point of physique, mind, and temperament.

DR. FILON

Asked whether this principle of homogamy or like-marriage, taken in conjunction with the giving of equal opportunities to all types which the lecturer had advocated, was not likely, in the future, to tend to the indefinite splitting up of the human species, and whether the lecturer thought that a desirable object?

WRITTEN COMMUNICATIONS

FROM MR. H. GORDON JONES.

As to Dr. Tayler's first proposition that Sociology should be based on Individuology, I find myself unable to agree with him in the position he takes up. I look upon sociology proper as having for its object the study of the laws of social phenomena—it has to investigate the constant relations which phenomena exhibit. Now, these phenomena are certainly the consequence of the facts of individual human nature; the social organism is, as it were, the life of the individual "writ large," it is the result of the development of human nature. Sociology must therefore have a biological basis, we must base the social life of the whole upon the life of its parts. But we do not need for this purpose to consider the varieties of individuals and their individual characters, because the individual peculiarities are neutralised in the growth of society, a growth which is due, not to the special characteristics of individuals, but to the existence of those common attributes of human nature which all men possess. And I think Dr. Tayler makes use of a false analogy when he speaks of the study of varieties of individuals and their methods of grouping themselves as constituting the foundation of sociology. It is quite true that the study of the cell, and the varieties of cells, is the foundation of biology, for both plants and animals are built up of cells; the properties of cells therefore form the subject-matter of biology. But in sociology, the analogue to the biological cell is not the individual *per se*, with all his idiosyncrasies, due to his special environment and heredity; the true analogue is human nature as a whole. The individual, in Dr. Tayler's sense of the word, corresponds to a species of plant or animal, and to base the study of sociology upon the individual characters of individuals, instead of their general characters, seems to me equivalent to saying that an abstract science, which I take sociology to be, can be based upon a concrete one. That an abstract science draws its data largely from concrete ones is true, but surely the basis of sociology is the abstract science of biology, and not such concrete studies of human nature as those referred to by Dr.

Taylor. Such studies appear to me to stand to sociology in the same relation as botany and zoology to biology. They would therefore constitute a kind of concrete sociology, and perhaps this is what Dr. Taylor means.

While raising this question of method, I thoroughly agree with the practical conclusions which Dr. Taylor has laid before us. To get a really efficient society, a society which would readily respond to the demands made upon it, we do want a much closer adaptation of social organs to their functions. One of the most important means of bringing this about lies, I think, in the universal adoption of a really scientific education for every social unit, an education such as that outlined by Comte. The result would be an enormous increase of social efficiency; each member of society would then be a social organ, fully conscious of the nature of the social organism and of his or her duties to it. Such a system of education would go a long way to break down the class-distinctions which still exist amongst us, and which, by limiting the opportunities of the individual unduly, promote social inefficiency. Dr. Taylor has rightly pointed out the great importance of, as far as possible, removing artificial restrictions upon marriage opportunities. The present system has the effect of separating society into as it were distinct layers, with little or no social life in common, and the natural result is the absence of that homogeneity which is indispensable for the highest social efficiency. I need hardly say that only the general adoption of a scientific system of education, will ever place marriage-choice upon a freer basis; for the real thing which keeps the classes apart is the absence of common ideals, and common modes of thought. We want a greater amount of intermarrying amongst the different classes of society, and the removal of unnecessary restrictions upon the development of the individual, restrictions which are no longer compatible with an industrial society.

FROM MR. H. OSMAN NEWLAND.

The points at which I am in agreement with Dr. Taylor are:

- (1) That there is an urgent need for a science of Individuology.
- (2) That in a large modern community, there cannot be expected or obtained an equality of opportunity, a state of equilibrium between the individual and his work, and a healthy social efficiency, without the existence and the aid of such a science.
- (3) That the study of varieties of individuals, and their methods, conscious or unconscious, of grouping themselves, is a necessary part of sociology.

(4) That sociology, to progress, must devise methods for organising the best means of favouring a better grouping of men and women.

The points at which I differ from Dr. Tayler are :

(1) That there is no other principle than an individuological one upon which to establish sociology.

(2) That sociology will rely for its data upon a new science (individuology), which describes the individual characters of individuals.

In the first place, to say that the foundation of sociology rests upon an individuological principle, seems to me a contradiction in terms as well as a case of *petitio principii*.

Sociology is essentially a science which treats of man as he lives, acts, and thinks, not as an individual, but as a member of a Society. Individuology, on the other hand, is or will be a science which studies, or will study man as a member of a sub-society or individuo-socius, within the larger Society—this sub-socius being differentiated from, but depending for its existence upon membership in the greater society, as the greater includes the less. The sub-society, or, as it may be called for convenience, the caste or class, is differentiated from the parent society in being the result of a more artificial or more conscious selection ; hence it is a later development.

Individuality itself, from the historic and evolutionary standpoint, is the product of a highly organised state of society.

There is little, if any, differentiation between the chief and his people in a primitive society in which chief and people are of the same race ; wherever a degree of differentiation appears, it is of a physical rather than of a mental nature. Under a despotic government, such as that in which the ruler is of a different race, and rules by right of conquest, there is no scope for individuality, save that which comes from the outside, namely by means of culture-contracts ; and these do not take place in the earlier history of any society.

Even under civilised conditions, political societies and some cultural societies are not formed upon any principle of individuology, but upon the principle of sociability, i.e., the capacity (a) of subordinating consciously one's individuality to the will of the few for the benefit of the many ; or (b) of acquiescing consciously, or automatically, in the feeling and action of the multitude.

The study of sociology must then, in my opinion, be based primarily on the study of human nature *en masse*, and any investigation into the sub-grouping of individuality must be preceded by, or taken simultaneously with, an investigation into the causes of that subtle power in crowds, whether unorganised or organised, by which the individual loses his individuality and becomes temporarily another creature with his associates.

It seems to me also that Dr. Tayler contradicts himself when

he postulates that "individuals being less modified by their surroundings are more potent social influences," and afterwards proceeds to state that "any normal type *tends to become unhealthy in any ill-adapted social atmosphere*," and "a healthy child, *if healthily environed*, tends to grow into an adult individuality."

Perhaps, however, this contradiction is only apparent in the abstract of the paper, and clears itself in the context.

DR. TAYLER'S REPLY.

He would like to state, in reply to the Chairman's criticism, that there had been a little misunderstanding of his position. The root-conception of his lecture was the idea of the study of individuals on individual lines as being a necessary preliminary to the study of the grouping of individuals on social lines. These were two distinct subjects, but the conclusions of the former one were necessary to the latter.

He thought, as Mr. Swinny had pointed out, that every one did know that talent was to be found in the poorer sections of the community; the point that he wished to make clear was not this at all, but another of a different nature, namely, that the talent that does find expression, that does become known and serve a social end, is only a fraction, *a very small percentage of what could be utilised*.

He maintained that to found sociology upon individuology, rather than upon inanimate climatic and architectural surveys, was to give the science just that dynamic character which he thought Mr. Swinny rightly desired. And though he shared with Mr. Swinny the belief that the human organism was in large measure responsive and adaptable, he yet differed from him in one respect, thinking that this responsiveness was strictly limited by the nature of the organism, and was not, as Mr. Swinny appeared to believe, indeterminate. That Roman thought was different to our own was largely due to the fact that we ourselves were

different, type evolution to a great extent controlling thought evolution indirectly, through a change in inborn desiring capacity.

In one sense he was quite prepared to accept the chairman's view that individuological material is biological, but then from another aspect it is sociological, and just because it embodies conceptions that neither science can include, he felt the need for the existence of such a science to be real and practical.

One other question was briefly referred to. He had, he said, no objection to the word class when it was scientifically interpreted, but popularly class and caste are terms that are much misunderstood. People refer to cultured and wealthy classes, when they mean caste formations. Caste is an exclusive and collective term, class represented on the other hand a natural grouping of individuals of like powers. It was the popular use of the word that he deprecated. He considered that they must, as scientific sociologists, be willing to grant the freest opportunity to the individual so that he or she could attach himself or herself to the social group or class to which such an individual naturally, by hereditary capacity, belonged. The principle of type opportunity which would favour natural class formations having distinctive social values, was to his thinking the leading one for all sociological studies to be based upon, for it was this opportunity that made vocational and domestic selective influences efficient factors in social evolution.

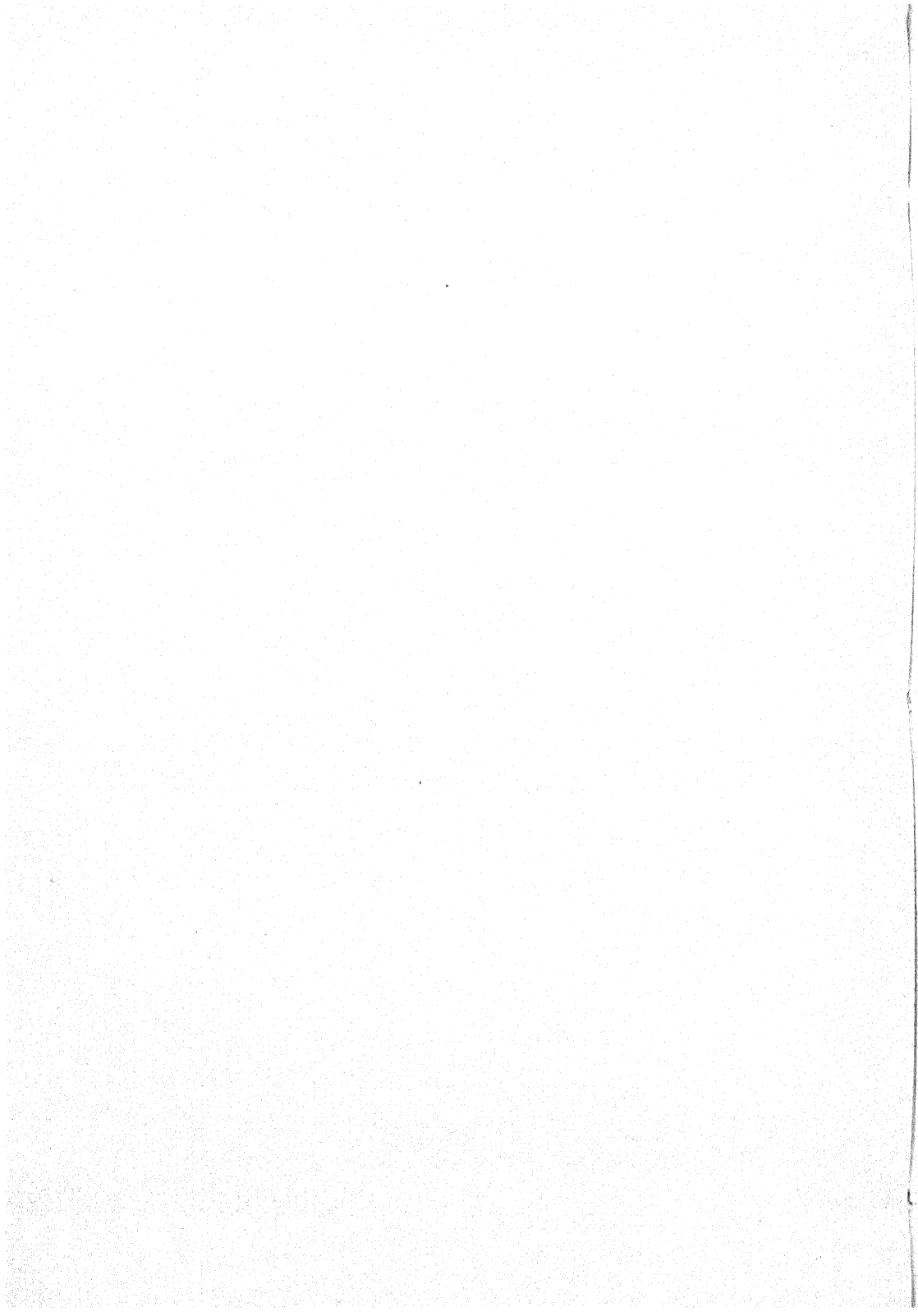
In reply to Mr. Hand, he would say that the persons he had referred to were very barbaric. What struck him as a medical man was that people were naturally grouped in streets, but usually some individuals stood out as superior. In this particular street there was no individual who he thought was much above his surroundings. He did not think it was a matter of degeneracy, but of "type." The respectable person could not live there; he would find a place elsewhere. In course of time these people intermarried, and their condition was due to the perpetuation of the barbaric type in bad surroundings.

In reply to Dr. Saleeby, he would say that the only other point that had specially struck him was in relation to a remark of Mr. Galton's that a parent often thought the child was very much influenced by his surroundings when the child responded to the parents' guiding influence because he was of like nature. He had been much struck with this in regard to the home. If the two parents were alike, they understood their children because the children were like them. If the parents were unlike, they misunderstood the children and brought them up badly. With regard to the position of Professor Karl Pearson, and others who had studied marriage on similar lines, they were, as Dr. Saleeby had said, in many respects similar to his own, but considered from a different aspect. The whole subject required much deeper study and research than had so far been given to it. The eugenic value of *unconscious* natural marriage selection when it was uninterfered with (the *normal*, like to like marriage favouring progressive elements in the nation, and the *anomalous* marriage checking extreme divergence and preserving a mean standard) was the chief observation that had interested him, as this united the individual ideal of a love-comradeship marriage with the social ideal of eugenic fitness for parentage, and the sociological value of this unity was, of course, incalculable.

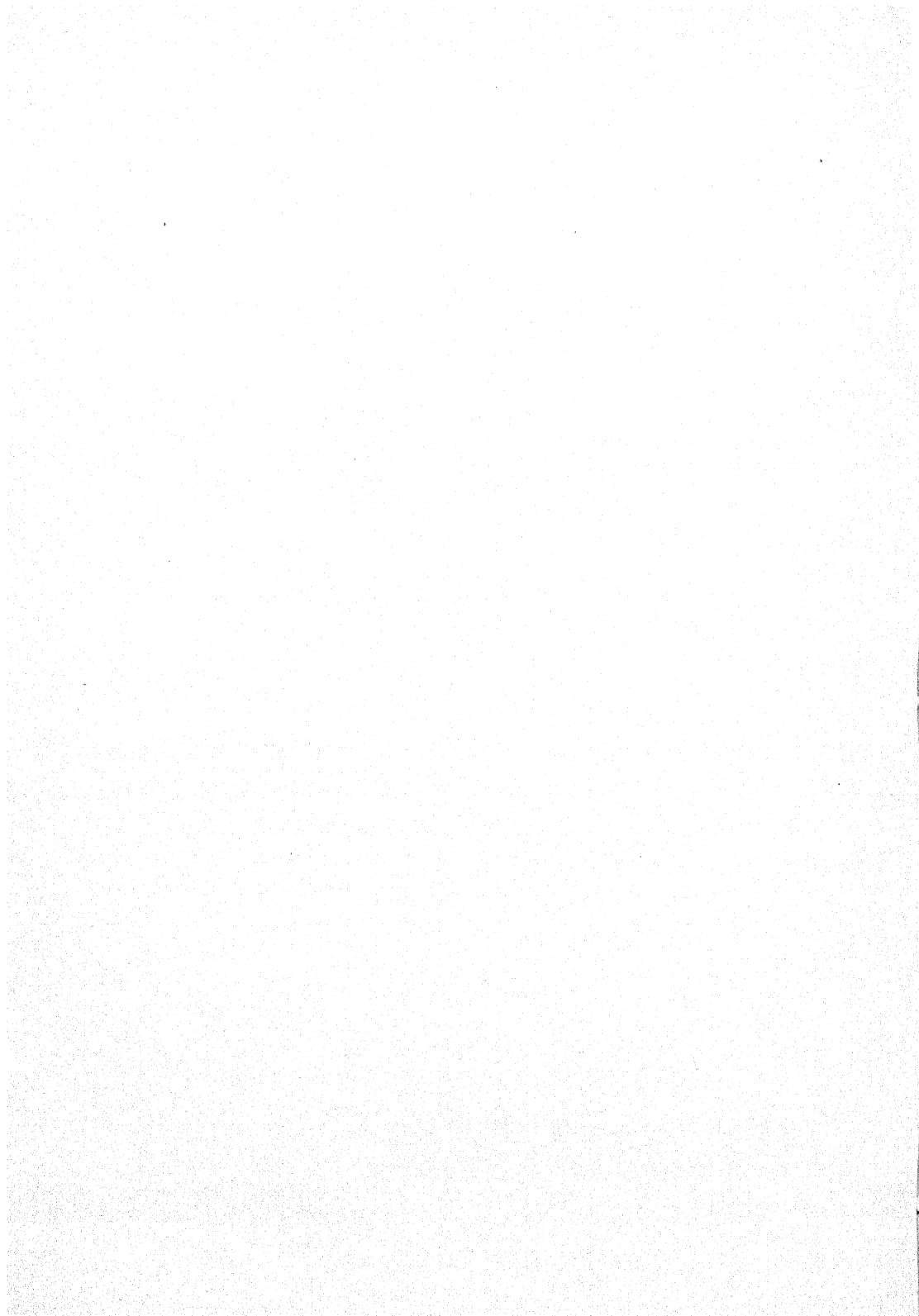
In reply to Dr. Filon, he thought anomalous marriages would tend to check too intense specialisation, as an individual who once became so far divergent from his fellows as to be noticed by them and disliked or misunderstood, would tend to marry someone who had perhaps opposite characteristics, an ultra-artistic type marrying an ultra-scientific one, just as an albino might marry a very dark person, not for the sake of possible children that might be born to them, though this end would be unconsciously realised, but because their own peculiarities had by incessant unfavourable notice come to be regarded with dislike, and the presence of the opposite character tended thus to attract them.

Further, the more highly organised the state, the

greater would be the sense of a prescribing common unity of aim, and this again would check an indefinite formation of unconnected human types. Still there could be no doubt that this question needed much attention and thought.



**SOCIOLOGICAL APPEAL TO
BIOLOGY**



THE SOCIOLOGICAL APPEAL TO BIOLOGY.

By PROFESSOR J. ARTHUR THOMSON, M.A.,
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Read before a Meeting of the Sociological Society, at the School of Economics and Political Science (University of London), Clare Market, W.C., on March 14th, 1906, Professor GEDDES in the Chair.

Sociologists, that is to say those who are engaged in the scientific study of the origin, development, structure, and functions of human societary forms, have admittedly a difficult task, and it is not surprising that they should look about for help on many sides. In recent years many writers on sociological subjects have appealed to biology for assistance and have used biological formulæ in their interpretations. The title of the admirable journal *Archiv für Rassen-und Gesellschafts-Biologie* is very significant. I wish in this paper, which is more introductory and elementary than I had intended, to *illustrate* at once the value and the risks of the sociological appeal to biology. My point of view may seem very obvious to some, absurdly cautious to others; it seems to me consistent with scientific method.

RELATIONS OF BIOLOGY AND SOCIOLOGY.

Every one admits that in biology—the scientific study of the origin, development, structure, and functions of organisms as such—it is useful to appeal to physics and chemistry. Although it has not been possible, to my thinking, to trans-

late the biological description of any vital sequence into physical and chemical terms, the methods of physical and chemical analysis have been very valuable in biological study, deepening it and broadening it, and enabling us to see more clearly what is distinctively vital, the autonomy of the organism. The utility of the analytic method has increased in proportion to the completeness with which it has been possible to discriminate the numerous chemical and physical factors which contribute to the result which we call vital activity.

By analogy, then, it seems on *a priori* grounds legitimate to expect that biological analysis applied to the life and history of societary forms will be fruitful; and the few secure steps already taken in this direction are full of promise. But the analogy also suggests that the result of analysis in terms of lower categories will in the long run be to bring the distinctively social into stronger relief, and that secure progress in the utilisation of biological formulæ will depend on the relative completeness with which the biological factors operative in social activity can be discovered. A chemico-physical analysis of organic processes which left out electrical factors would be inept indeed; a biological analysis of social processes which left out, say, the "mutual aid" instinct would be, I venture to think, equally fallacious.

From time to time in biology some success in physico-chemical analysis has led to the fallacy which Comte called a "materialism"—the premature attempt to formulate the phenomena of a higher order of facts in terms of the categories of a lower order of facts, premature in that it attains an apparent success only by ignoring the most essential features; *e.g.*, in this case, those distinctive peculiarities of self-regulation, adaptive response, and the like, which give organisms their peculiar apartness from all inanimate systems. It is impossible to argue the matter here, and it is impossible to tell what unification of descriptive formulæ may be in the lap of the future; but I am, I think, stating a matter of fact, not expressing a personal opinion, when I say that it is at present an inaccurate "materialism" to pretend that we can

form late any distinctively vital phenomenon in terms of mechanical (physico-chemical) categories. In recognising and appreciating the operation of the chemical and physical factors which contribute to the result which we call the life of an organism, the biologist has so far simply brought the distinctively vital into greater prominence.

Similarly, in regard to the biological analysis of social sequences, there seems to me in recent literature some warrant for protesting against the "materialism" (in Comte's sense) of pretending that sociology is merely a higher department of biology, and a human societary group no more than a crowd of mammals. I have little faith in a biology which does not frankly admit that an organism is a new synthesis when compared with inanimate systems, and I have equally little in a sociology which does not consistently recognise that a human societary unit, however simple, is also a new synthesis as compared with the beasts of the field—a unity with a distinctive mode of behaviour, with a whole that is more than the sum of its parts; in short, with a life and mind of its own.

The fallacy of regarding sociology as no more than a recondite branch of biology is not merely verbal, implying differences of opinion on the tedious question of the best definitions of these two sciences; it involves a misconception of what human society is, a misconception which is discredited by the facts of history and experience. No one doubts that the life of a social group is made up of a complex of activities of individual persons; but these are integrated, harmonised, and regulated in a manner as far beyond present *biological* analysis as the integration, harmonisation, and regulation of the chemical and physical processes in the individual organism are at present beyond *mechanical* analysis.

Nor is the "materialism" a theoretical fallacy merely, it has its practical side. Just as a cattle-breeder may produce by careful selection an ideal prize-bull, almost perfect according to the physical standard aimed at, but with the serious vital defect of being sterile; so pre-occupation with a purely biological ideal might in relation to the human race result in

consequences which were anything but advantageous socially. I venture to say this although there seems at present much more danger of the converse practical fallacy of forgetting that the biological ideal of a healthful, self-sustaining, evolving human breed is as *fundamental* as the sociological ideal of a harmoniously integrated society is *supreme*.

In any case, it is useful to recognise that the biological and the sociological ideals are not synonymous. As a matter of fact, though the former should contribute to the latter, which should include it, the practical clashing of the two ideals is familiar and interesting. Sociologically regarded, illegitimate children do not appear to be very desirable; biologically regarded, they are often very valuable assets. Sociologically regarded, it seems quite consistent with progress that the trawling industry should flourish; but, what with pleasant food on the one hand and pleasant dividends on the other, we run some risk of forgetting what the biologist deplures, the elimination of the splendid physical type of the line fisherman and the disappearance of one of the manliest of callings. Scores of similar instances will occur to every one.

The danger of trying to press biological formulæ into the service of sociological interpretation is complicated by the actual history of the sciences. It is well known that the sociological inquiries of Malthus as to human population influenced Darwin, Wallace, and Spencer, and that the concept of natural selection in the struggle for existence came to biology from above rather than from within its own sphere. The same is true of the fruitful idea of division of labour, of the general idea of evolution itself, and of others—they came to biology from the human social realm.

To keep to the concept of selection for a moment: it was applied to plants and animals, it was illustrated, justified if not demonstrated, and formulated; and now with the imprimatur of biology it comes back to sociology as a great law of life. That it is so I take for granted, but it is surely evident that in social affairs, from which it emanated as a suggestion to biology, it must be re-verified and precisely

tested. Its biological form is one thing, its sociological form may be another. Perhaps it requires to be corrected by other laws of social life which have meanwhile been recognised. Perhaps there may be other hints from human social life as to the factors in evolution, whose importance we will not recognise until they have been projected upon the world of plants and animals and verified there. In any case, a formula borrowed from another science and applied to a new order of facts—even to those in regard to which it first arose as a suggestion—must be rigorously tested. Otherwise, both organic and social sciences resolve themselves into socio-morphic illusions.

THE CHIEF VALUE OF THE APPEAL TO BIOLOGY.

As it seems to me, the chief value of “the Appeal to Biology” on the part of students of sociology is three-fold:—

(1) The analysis of biological factors operative in social sequences may serve to bring into stronger relief what is distinctively social. Thus when we analyse out what is due to natural inheritance, we see more clearly what social heredity really is. When we analyse out the various forms of natural selection operative in mankind, we see how much or how little selection there is which cannot be expressed in that formula.

(2) The biological analysis may serve to show that certain features of social life have what I may call organismal mainsprings, and become more intelligible when traced back to these. Thus the relative lack of fertility in fine human stocks requires biological as well as sociological interpretation. Again, no one can do justice to the social significance of sex or of play who does not know the biology of these. Or again, looking at this value from another side, the relatively simpler biological ideals, which must remain fundamental, *e.g.*, of physical culture and eugenics, may afford a useful touchstone for testing the validity of the more complex sociological ideals.

(3) The parallelism of the two sciences is such that

biological conclusions and experiences may have great suggestive value to sociology, aiding in the discovery of sociological laws and indicating practicable possibilities of social evolution.

To illustrate this threefold value of the appeal to biology, and at the same time the risk that biology, used unduly as a support, may pierce the sociological hand, I propose in this introductory paper to consider a few biological generalisations and to inquire into their bearing on sociological problems.

ORIGINATIVE FACTORS IN EVOLUTION.

Variations.—Our biological knowledge of the nature and origin of those changes or variations which form the raw material of organic progress is still incipient; yet the little we know must be borne in mind in sociological discussions. There is general agreement that inborn variations—which give every organism its individuality—are the expression of changes in the intricate architecture of the germ-plasm. It is suggested that they are due (*a*) to the influences of the environing “body,” with its variable nutritive stream, on the germ-cells; (*b*) to the intricate permutations and combinations preparatory to and implied in fertilisation; and (*c*) perhaps to what may be called growth-changes in the germ-plasm as it is continued from generation to generation. We are sure that these endogenous or germinal changes, expressing themselves in development, supply the raw material of evolution on which selection operates, and we are not sure that there is any other source of raw material.

Compared with most organisms, man is a slowly reproducing, slightly varying, creature. In so far as deeply ingrained characters are concerned, a bodily change in the race by natural inheritance is likely to be slow. Thus we are led to look for other than germinal origins of social variations; thus we are led to suspect that when a social evolutionary process—up or down—is rapid, there must be super-organic factors at work. The distinction between

organismal and social variations is obvious. The distinction between inborn variations and acquired modifications (which may be very rapidly diffused) will be alluded to later on.

While the facts seem to suggest that most of the organic variations which occur in civilised communities are simply slightly novel combinations and permutations in that complex system of ancestral contributions which we call our natural inheritance, the recent work of investigators like Bateson and De Vries has led us to recognise that discontinuous or transilient variations are of not infrequent occurrence in organisms. A "new departure," a remarkable change of organic equilibrium may suddenly appear, and may come to stay, especially if it be favoured by in-breeding or some form of isolation. It seems certain that a definite breed of cattle may arise in a single farm-yard, may be in-bred until it attains dominant prepotency, and may after a while persist in its integrity in spite of occasional inter-crossing. If this be so, we can better understand how a particular human strain—such as "the Celtic type"—may be so prepotent that it persists as an important social factor in spite of much mingling of stocks. On the other hand, a genius is a transilient variation who usually does not come to stay, except as an immortal spirit embodied in literature or art.

The view that man has a range of psychical variability as large as his range of physical variability is small, does not seem to us supported by facts. The view that man's psychical variations are independent of natural inheritance is contradicted by careful investigations, such as those of Karl Pearson (1903). The useful fact to emphasise is that man, though slowly or slightly *variable*, is rapidly and exceedingly *modifiable*, and that social organisation provides a means—an external heritage—whereby the results of modifications may be practically transmissible, though not organically entailed. To this elementary distinction—necessary, however, for clear thinking—we must repeatedly refer.

By a "social variation" we mean a change in the organisation of a society form, and it is not within the

scope of this paper to discuss its nature and origin. That is part of the task of the sociologist; and its accomplishment lies far ahead. It may not be presumptuous, however, to make this suggestion. A variation expressing itself in an individual organism is marked by changes in many individual units, and these changes have to be described and measured. But the origin of the variation was germinal, in the "immortal" germ-plasm which gives continuity to the chain of transient generations. Thus we are led to think that those social changes that really count must have their basis in that which is to societary forms what the germ-plasm is to generations of organisms, the *esprit de corps* (in the unrealisable full meaning of the phrase!) which gives unity to every societary form whether it be big or little.

Modifications. — Besides "variations" in the strict sense, there are other organic changes, technically known as "modifications," or, more awkwardly, as "acquired characters." They are definable as bodily structural changes acquired by the individual organism as the direct result of changes in function (use or disuse) or of changes in the environment, and so transcending the limits of organic elasticity that they may persist after the inducing conditions have ceased to operate. They are exogenous, somatogenic changes, as contrasted with endogenous, blastogenic changes. They are the direct results of peculiarities in "nurture," as contrasted with inborn changes in the inherited "nature," to use the convenient words with which Mr. Galton, following Shakespeare, has made us familiar. That they are, after all, reactions of the inherited nature to new conditions of stimulus, both positive and negative, is obvious. Now, the important point is that we cannot with any security count in these "modifications" as part of the raw material of evolution (progress or retrogression), for we have no good evidence to show that they can be hereditarily entailed as such, or even in any representative degree transmitted to the offspring.

It is admitted that some deeply-saturating modifications may, by affecting the nutritive stream, indirectly affect the germ-plasm, but there is no proof of the transmission of any

modification as such. The evidence for this assertion will be found, for instance, in the works of Weismann.

It is admitted that the organism—notably the human organism—is often extraordinarily modifiable, and that similar conditions may induce similar modifications on generation after generation, so that an appearance of heritability results.

Moreover, as Professors Mark Baldwin, Lloyd Morgan, and H. F. Osborn have pointed out, modifications that are effectively advantageous—adaptive responses, in fact—may have an indirect evolutionary importance, for they may serve as sheltering life-preserving or welfare-furthering screens until coincident endogenous variations in the same direction have time and opportunity to establish themselves. Thus a modificational change may be gradually replaced by a strictly variational, and, by hypothesis, heritable one. Then the screen or veneer may be done without.

If the conclusion of the majority of biologists be correct, that modifications are not as such transmitted, there are some obvious sociological corollaries. We have, in the progress of education, therapeutics and hygiene, unceasingly striking evidence that the human organism is very plastic; but we cannot delude ourselves with the belief that its precise gains or losses are ever as such transmitted. Therefore, it has to be our practical endeavour that advantageous modifications be *re-impressed* on each successive generation, and that detrimental modifications be avoided.

But the biological conclusion has to be in an important respect corrected for the social realm, in view of the fact that man has an external heritage of custom and tradition, institution and legislation, literature and art, which is but slightly or not at all represented in the animal world, which yet may be so effective that its results come almost to the same thing as if acquired characters were transmitted. They are re-impressed on the bodies and minds of successive generations, though never ingrained in the germ-plasm. It seems probable that not a few of the biologically and socially unfit are only *modificationally* veneered or repressed or arrested.

Moreover, while among plants and animals the organism is often largely a creature of circumstances, very thoroughly in the grip of its surroundings and mastered by them, it becomes otherwise as we ascend the scale of being. Increasingly we find the organism—be it bird or mammal or man—much more master of its fate, able to select its own environment in some measure, able to modify its surroundings as well as be modified by them. As we take a bird's-eye view of the course of evolution, must we not recognise the gradual emergence of the free agent—the operation of what has been badly called “organic selection?”

Heredity. — We may define heredity as the genetic relation between successive generations, and inheritance as all that the organism is or has to start with in virtue of its hereditary relation to parents and ancestors. All sociological talk that appeals to a “principle,” “law,” or “force” of heredity should be ruled out of court.

The hereditary relation is sustained by the germinal material, and the precise study of this physical basis has done much of recent years to define the way in which generation is linked to generation. The fundamental fact of the continuity of the germinal material from generation to generation—the fact which is in biology like the first law of motion in physics—secures that persistence and continuity of organic kinship on which the possibility of a society depends. The peculiar way in which the germ-plasm accumulates within itself what we must regard as multiple sets of hereditary contributions, and becomes like a mosaic, or like capital growing at compound interest, is a fundamental fact for sociologist as well as for biologist. It is the organic condition of the social instinct.

The great generalisation known as Galton's Law of Ancestral Inheritance, according to which inheritances are on an average made up of a half from the two parents, a quarter from the four grandparents, an eighth from the great-grandparents, and so on, may require some adjustment as regards the precise fractions, and in relation to cases of inter-crossing, but the general fact seems to have been well

established, and it is eloquent. Taking it along with Professor Karl Pearson's evidence that the inheritance of psychical characters can be formulated like that of physical characters, we are in a better position to understand what is called "social solidarity" and "social inertia." We are able to realise more vividly how the past has a living hand on and in the present, even to feel, perhaps, that there is a danger of fallacy in insisting too much on either past or future when we have to deal with the continuous stream of life. Mr. Galton's generalisation makes reversions, survivals, recapitulations, and the like more intelligible.

Very suggestive also is Mr. Galton's elucidation of Filial Regression—that there is a continual and necessary tendency to approximate to the mean of any stock. In proportion as two parents are divergent from the mean of their stock, will be the succession-tax levied upon their offspring, which will tend to approximate, up or down, towards the general level. This is capable of statistical proof, and it follows from the broad fact that each parental contribution is a mosaic of inheritance, which, except in cases of very careful selection (for good or ill), must eventually be traced to a crowd of ancestors representing the average mediocrity of the stock.

Thus we have light thrown on the familiar facts that children of exceptionally gifted pairs are often commonplace, and that children of worse than commonplace parents are often very fair samples of the breed. More generally, we see, as Mr. Galton says, that there is a general and inevitable levelling-up and levelling-down, that a society biologically considered tends to move like a great fraternity. Just as his "Hereditary Genius" studies gave us a biological basis for pride of race and a respect for true aristocracy, so his Filial Regression formula is a message to democracy.

The facts of inheritance acquire profound sociological significance when we inquire into the relative rates of fertility in different sections of a population, and into the probabilities of the production of highly endowed types in these different sections. To my mind, one of the most suggestive of bio-

logical contributions to sociology is that famous "Huxley Lecture" in which Mr. Galton indicated some of the probable practical corollaries of his statistical laws.

Man is a slowly varying organism, and he is peculiarly liable to have his inborn nature concealed by a veneer due to nurture, but there is no ignoring the fact that there are great differences in quality and quantity of hereditary endowment. As was long ago expressed in immortal parable, there are those who have ten talents, those who have five, and those who have only one.

Now, the differences in hereditary endowment—of strength or intelligence, of stature or longevity, of fertility or social disposition, have a certain regularity of distribution, so far as we can measure them at all. They conform to what is called the Normal Law of Frequency, which is always illustrated when variations are due to the combined action of many small and different causes. Human variations, whether bodily or mental, may be registered on a curve of frequency, just like the variations of poppies or jelly-fishes—on the same sort of curve as may be illustrated by plotting out the marks round the bull's eye in target practice, or the numbers which come to the top in many thousand throws of the dice, or the marks in a competitive examination with a large number of candidates.

May I briefly recall Mr. Galton's argument? If we take a precisely measurable quality like stature, we find that the average height of a large number of adult Britons is 5 feet 8 inches; above this line of mediocrity there are taller men who may be arranged in groups, the means of which are separated from one another by $1\frac{3}{4}$ inches; we may call these +R, +S, +T, +U, +V, +W, and +X, till we end in giants of 6 feet 6 inches; we may give to the distance between the groups ($1\frac{3}{4}$ inches) the name "normal talent." Thus while the average adult has 39 "normal talents" of statures (5 feet 8 inches), the seven groups above him, rapidly decreasing in numerical strength as we ascend, have respectively 1-6 talents more than mediocrity.

On the other side of mediocrity, there are of course

groups of minus variations, groups which we may call $-s$, $-t$, $-u$, $-v$, $-w$, and $-x$, with 1-6 talents fewer than the normal equipment of 39; and the minus or left side of the curve exactly reflects the plus or right side. A giant of 6 feet 6 inches would belong to the small and very select seventh class above mediocrity ($+X$), while a dwarf of 4 feet 10 inches would belong to the seventh class below par ($-x$); and there are apparently as many of the one as of the other. Mr. Galton maintains that the curve holds good for any particular measurable quality taken separately, and that it also holds good when the qualities are grouped. "It can be employed to give a general idea of the distribution of civilisation, in so far as it is normally distributed and the same for any group of normal qualities."

The next step in the argument is important and brings us into closer touch with social problems. Mr. Charles Booth in his well-known demographic studies has arranged the population of East London into grades of "civic worth," beginning with criminals, semi-criminals, and loafers, going on with increasing numbers to casual workers, intermittent workers, and thence to regular earners under 22/- a week, and so on. The results show "a fair approximation to the normal law of frequency." Again we have the groups, $+R$, $+S$, $+T$, etc., and the groups, $-r$, $-s$, $-t$, etc., forming the two sides of an approximately similar and symmetrical curve.

It is easy to say that one knows of this, that, and the other one who rose into class $+T$ by sheer luck; and of this, that, and the other one who fell into class $-t$ by the hand of God—a fire, a wreck, an explosion, and what not; but when we are dealing with large numbers it does not seem that these exceptional exaltations and depressions of individuals are of vital moment. It is also evident that the standard of civic worth used by Booth is only one of many standards—that of economic production under present conditions—but to begin with we must measure by one standard at a time. We know that it would be individually unjust to put, say, Arnold's "scholar gipsy" on the minus side as a casual worker, but there are not many scholar gipsies.

The next step in Mr. Galton's argument might be described as a financial valuation of babies. Suppose we could import at the present moment ten legions of boys of sound physique and scouting intelligence, not crammed with intellectual fat like Strasburg geese with the physical analogue, but alert in understanding of methods and with unchecked inquisitiveness, what great national gain it would mean! It would be a good investment, and it is within reach every year, since far more than ten legions of this type of boy are being born annually in our midst. That they do not effect all they might do, is partly because of mis-education, but also because there is a simultaneous appearance of an enormously greater number of boys who are emphatically *not* of this type.

Dr. Farr, the eminent statistician, tried to estimate the social money-worth of the average baby born to an Essex labourer, supposing him to live as long as and after the manner of his class. Allowing for cost of maintenance during the two helpless periods of infancy and senile infirmity, Dr. Farr came to the conclusion that the national value of the baby was about £5. If £50 is nearer the mark, it does not affect the argument.

"On a similar principle," Mr. Galton says, "the worth of an +X-class baby would be reckoned in thousands of pounds. Some such 'talented' folk fail, but most succeed, and may succeed greatly. They found industries, establish vast undertakings, increase the wealth of multitudes, and amass large fortunes for themselves. Others," he continues, "whether they be rich or poor, are the guides and lights of the nation, raising its tone, enlightening its difficulties and improving its ideals. The great gain that England received through the immigration of the Huguenots would be insignificant to what she would derive from an annual addition of a few hundred children of the classes +W and +X."

Now, however, comes the crux of the whole argument. By a method expounded in his "Natural Inheritance," Mr. Galton has endeavoured to express in a standard table pre-

cisely how each generation of a classified population is derived from its predecessors. Keeping to the terminology that the groups above mediocrity are +R, +S, +T, +U, +V, +W, +X, let us inquire with Galton into the origin of 35 male members of the very excellent grade +V (fifth above mediocrity, 1 in 300). (That these are not *mainly* due to marriages of +V-class parents is probably suggested by our everyday experience, and this observational conclusion is borne out by the statistics, which, in regard to some qualities, such as stature, can be made very precise). Mr. Galton's result is that of the 35 +V youths, six come from +V (fifth) parentages; ten from +U (fourth); ten from +T (third); five from +S (second); three from R (first), and *none* from below R.

But along with this very suggestive result, we have to consider the numerical strengths of the contributing parentages. When this is done, "we see that the lower classes make their scores owing to their quantity and not to their quality; for while 35 +V-class parents suffice to produce six sons of the +V-class, it takes 2,500 R-class fathers to produce three of them." Thus from the point of view of eugenics, if we wish to increase the number of +V-class offspring, the most profitable source is to be found among the more prepotent +V-class parents; they are three times more profitable than those of the next class, +U, and 143 times more profitable than those of class R!

Other Aspects of Heredity. One is tempted to linger over that mode of inheritance which is called true reversion, where ancestral characters that have lain latent for several generations suddenly find opportunity to re-assert themselves. It is true that "reversion" has been a convenient "free toom" into which much rubbish has been shot. It is true that reversion has been terribly confused with arrests of development (usually of modificational origin), with the not uncommon variations in those numerous vestigial structures of which our body is a walking museum, with independent variations that "happen to hit an old mark in aiming at a new one" or simply suggest to the credulous a harking-back to a more or less hypothetical ancestral type, and even

with the normal and everyday occurrence of filial regression. Yet it is undeniable that ancestral traits may remain long latent, apparently but never really lost, and that in the intricate shuffling of the cards which is associated with the maturation and fertilisation of the germ-cells, they may suddenly find their appropriate liberating stimulus, and assert themselves once more. A shepherd's cottage garden was swallowed up in a deer-forest and became a garden full of weeds; generations passed and it was once more delved; the long dormant seeds were re-awakened and many old-fashioned flowers saw the light. So there may be a re-awakening of almost forgotten flowers and weeds in that garden which we call our inheritance. Thus we interpret biologically what we cannot ignore in the body politic, the emergence of the old-fashioned type whom we—foxes without tails—think to dispose of under the label "reactionary," of the restless type, "neither to haud nor bind," who may be a Moses with re-awakened nomad instincts capable of leading a people through the desert to a new Promised Land, or, as is often the case, of the recrudescence of the vicious type, who, if he cannot be pardoned when we know all, can at least be the better dealt with the better he is understood.

Another aspect of heredity has an obvious sociological significance, the dark and intricate business of hybridisation or cross-breeding, in regard to which biologists are beginning to see some daylight. If we call mankind a species, we must admit that there are many sub-species or "elementary species," and that within these again there are minor groups of more or less well-marked stocks, and that there are also somewhat divergent groups or varieties. As in the past, so still there is no small amount of exogamy or cross-breeding, and it is much to be desired that the whole matter should be carefully investigated. How far is it true that cross-breeding provokes an "epidemic of variations," that it tends to induce "reversions," that the older stock is prepotent over the younger, and so on? According to De Vries it is very generally true of plants, that a retrogressive variety (*i.e.* one different from the parent species in the marked absence of some character) will, if crossed

by a typical member of the species, produce offspring which return to the original type. Is there any analogue of this "false atavism or vicinism" in human kind?

One is tempted to speculate as to the possible sociological interest of Mendel's Law, if it should be found to obtain in the minglings of human races, but as yet we have not a sufficient basis of fact. As is well known, the in-breeding of *hybrids* of peas, stocks, mice, etc., is followed by a splitting of the offspring into true-breeding types like the two parents of the hybrids. I will only suggest that careful inquiry should be made as to the results of inter-marriage among Eurasians, for if Mendel's Law holds, there should be a sifting out of pure Asiatics and pure Europeans, both probably more desirable than Eurasians, fine mentally and physically as these often are.

There are still some who find satisfaction in pointing out that as human evolution is *par excellence* a psychical evolution, biological conclusions on the question of inheritance are irrelevant, since they are based on the study of measurable physical qualities. But those who would press this point must deal with Professor Karl Pearson's "Huxley Lecture" for 1903, "On the Inheritance of the Mental and Moral Characters in Man, and its Comparison with the Inheritance of the Physical Characters" (*Journ. Anthropological Institute*, XXXII., pages 179-237). His method was to obtain for upwards of 1,000 families impartial data as to *fraternal* resemblance in physical and psychical characters in school children. His argument was, "If fraternal resemblance for the moral and mental characters be less than, equal to, or greater than fraternal resemblance for the physical characters, we may surely argue that parental inheritance for the former set of characters is less than, equal to, or greater than that for the latter set of characters." His conclusion after many years of investigation was, that "the degree of resemblance of the physical and mental characters of children is one and the same," or more concretely, "we inherit our parents' tempers, our parents' conscientiousness, shyness and ability as we inherit their stature, forearm, and span." The psychical char-

acters are inherited in the same way, and at the same rate as the physical.

But one of the general points of this paper—for the introductory nature of which I have already apologised—may be illustrated here. In proportion as we succeed in analysing out the biological factors in our Natural Inheritance will we see clearly what is meant by “Social Heredity.” What do we mean by it? Not merely that facts of family and stock inheritance may have great social importance, whether they concern the history of a dynasty or the physical deterioration of a proletariat; not merely that great biological generalisations such as Filial Regression or the inverse ratio between rate of reproduction and degree of individuation have direct sociological relevancy; not merely that there are probably obscure laws of periodic recurrence, such as “the law of generations”; we mean especially that complex process by which much of what is most precious to us appears to be sustained from generation to generation in a *social heritage*, by tradition, conventions, institutions, laws and the whole framework of society itself. It is here that the biologist leaves off, and the sociologist must come in.

SELECTION.

Passing now to the *directive* factors in evolution in contrast to those which are originative and conservative, we find practical unanimity in recognising the importance of *selective processes*. We use a plural phrase in protest against the persistent fallacy of taking a narrow and crude view of what occurs in many different modes, at many different levels, and with very varied degrees of intensity.

VARIETY OF MODES, LEVELS, AND INTENSITY IN SELECTIVE PROCESSES.

As Darwin clearly indicated, the phrase “struggle for existence” is to be taken in a wide and metaphorical sense. In point of fact, it is in operation whenever and wherever the degree of effectiveness of vital response is of critical moment, not merely in helping *survival* at the time, but in

strengthening foothold, increasing comfort, lengthening life, promoting reproductive success, and so on.

It may be a miserable squabble around the platter of subsistence, but it may be a gentle endeavour after well-being. It may be prompted by "love" as well as by "hunger," using both words in the widest sense; it may be other-regarding as well as self-preservative.

There may be struggle between foes of quite different natures, *e.g.*, birds of prey and vermin, competition between fellows of the same kin, *e.g.*, brown rat against black rat, opposition between the sexes (*cf.*, courtship of spiders, in which the female often devours the male, and human competition between male and female doctors, clerks, etc.), self assertion against the quite indifferent, often merciless "weather" of the physical environment—its phases are as varied as life itself.

INTERFERENCE WITH NATURAL SELECTION.

Not a few sociological writers have echoed the warning of Herbert Spencer that modern hygienic and therapeutic methods interfere with the natural elimination of the weaklings whose survival consequently becomes a drag on the race, and there is doubtless some force in the argument, especially if we could confine ourselves to an entirely biological outlook. It appears to me, however, that the practical corollary that we should cease from interfering with natural selection, as the phrase goes, is as fallacious as it is impossible. (1) It seems a little absurd to speak of, say, the prevention of an artificially exaggerated infantile mortality as if it were an interference with the order of nature. (2) Much weakness which may readily become fatal is simply modificational, due perhaps to lack of nutrition at a critical moment; many weakly children grow up thoroughly sound; and even if we do keep alive some whose constitutions are intrinsically bad, we are at the same time saving and strengthening many whose intrinsically good constitutions only require temporary shelter. One enthusiast over microbic selection says:—"The higher the infantile death-rate which medicine so energetically

combats, the surer is the next generation of being purged of all weakly and sickly organisms." But he omits to record the fact that the infantile maladies also affect the intrinsically strong and capable, and often weaken them, one might say, quite gratuitously. (3) Many of the microbic agents which thin our ranks are very indiscriminate in their selection, and even if we believed that in warring against microbes we are eliminating the eliminators who have made our race what it is, as the enthusiastic apologists for Bacteria declare, it is surely open to us to put other modes of selection into operation. It were a sad confession of incapacity if man cannot select better than bacteria. (4) Finally, since we cannot keep to the biological outlook, is it ridiculously old-fashioned to plead that even when the physical constitution is miserable, the weakling may be a national asset worth saving, for its mental endowment, for instance, and for other reasons? *That the weakling is to be allowed to breed more weaklings if it can, is another question.* Everyone agrees that the reproduction of weaklings should be discouraged in every feasible way—in every way compatible with existing social sentiment.

MULTIPLICATION OF THE UNFIT.

We have to face a more difficult problem when we consider the multiplication of the relatively unfit. It is I suppose true that these have now a better chance to survive and multiply than at any other epoch in the history of our race. Especially perhaps in Britain do the weeds tend to increase more rapidly than the flowers. It is impossible to exaggerate the seriousness of the outlook. If, as Professor Karl Pearson points out, 25 per cent. of the married couples in Britain produce 50 per cent. of the next generation, how much depends on the character of that 25 per cent. From the most diverse regions we have reports of the alarming increase of what not even the most optimistic can regard as other than undesirables. In a fine climate and in a period of cheap food and high wages, the ratio of defectives, including deaf and dumb, lunatics, epileptics, paralytics, crippled and deformed, debilitated and infirm, is said to have increased from 5.4 per

1000 above 15 years in 1874 to 11'6 in 1896. Particular statistics, such as this, may be open to criticisms, but there are scores of similar statistics from almost every civilised country, and there is no escape from the general result. As Emerson said, we are breeding men with too much guano in their composition.

A HOST OF PRACTICAL SUGGESTIONS.

Needless to say, many of the inquirers who have become impressed by the facts have not been backward in making practical suggestions, which might be arranged if one had time on an inclined plane. Some, more trustful in natural selection than in any human device, have taken up an extreme *laissez faire* position, which, as human society is constituted, is quite untenable. The other day I passed by a rock village in Italy which was not so long ago in the direst sense *left to itself* when cholera broke out within it, sealed up, as it were, like a bee-hive diseased—but it is idle to talk of leaving natural selection free play in any civilised community. Others, going to the opposite extreme, have advocated what may be called surgical methods for both sexes to a degree that is more than spartan. Between these extremes we find all manner of suggestions. I need only refer to the marriage examination and certificate system which is being increasingly discussed—to much profit, it seems to me—in Germany; the segregation-schemes which suggest that those obviously unfit who have to fall back on the State (*i.e.*, the relatively fit citizens) for support should forfeit the right to reproduce, for which, again, there is much to be said; and the wise and gentle constructive eugenic proposals with which Mr. Galton has made the Sociological Society familiar.

Probably everyone who is at all aware of the facts will admit the desirability of giving attention to eugenics or the improvement of the human breed, positively, if possible, in the way of increasing the numbers of the effective, or negatively, in the way of trying to reduce the multiplication of the unfit. Inquiry into these subjects is comparatively new, discussion of them is still rare, a superstitious attitude towards

them is still very common—we cannot tell what may come about in a very gentle way when a conscience relative to these things is developed, or what might come about if some great social variation, *e.g.*, in the direction of democratisation and pacification, should come about.

Meanwhile, convinced as I am as to the hopefulness of various forms of eugenic selection, I cannot but enter a protest against the impetuous recommendations of some who seem to adhere too exclusively to the biological—the breeder's—point of view, who sometimes do not hesitate to suggest methods of surgical elimination to an extent that is almost grotesque.

I would suggest the following cautions:—

(1) We are far from being omniscient in regard to variations. Some deteriorative changes are well known, and history has given its verdict against them. Everyone agrees that there should be no breeding from epileptics, paralytics, lunatics and so on, but many other variations are unknown quantities. The unpromising bud may burst into a fair flower. Virchow's thesis of the pathological origin of some variations is not to be lightly brushed aside. There is an optimism of pathology. No one would propose to *encourage* the breeding of doubtful variants on the off chance of an occasional genius, but the race owes much to weaklings none the less. A man belonging to a family which has been manufacturing cystin for three generations should not have children—he would not pass the German marriage examination—but in himself he may be a very valuable national asset. Some of the lists given by the social surgeons are quaint in their unpracticality; thus one includes “a criminal taint”—as if that were a rarity, or as detectable as deaf-mutism, and another includes “pauperism.”

(2) Is there not much to be said in support of the view that many of the unfit are only *modificationally* unfit—simply ill-nourished plants in the crowded garden? Are we not apt to under-rate the plasticity of human nature and the ready repressibility of hereditary items? Is there strictly speaking such a thing as a transmissible disease, apart from

pre-natal infection? Is not a predisposition to disease the most that is transmitted? Are not many criminals mere anachronisms—people out of time or out of place, who require not incarceration or worse, but only transplanting. Records of Jukes' families or of the woman whose 709 descendants cost the state a quarter of a million are impressive, but one has to remember the modificational effect of social ostracism. One can hardly doubt that the high rate of criminals among illegitimate children—said to form one tenth of the births in Germany—is artificially created. In passing I may note as of interest the formation of a League in Germany to protect not merely illegitimates, but their mothers.

(3) While it is undoubtedly true that strongly developed evil characters may have a great power of persistence even beyond the third and fourth generation, just as strongly developed good characters may have, is there not a tendency to exaggerate the consequent tainting of stock? Dr. Archdall Reid has expounded the tendency of the uncontrolled alcoholic type to work itself out, and the same is true of other types. If germinal selection expresses a reality we should expect taints to be swamped, just as excellences often are.

(4) We do not know whether Mendelian phenomena of inheritance occur in man, but if they do, we should be slow to say that it is not possible to bring a clean thing out of an unclean. When an immune wheat plant and a non-immune are crossed the resulting hybrids are all susceptible to rust. When these are self-fertilised, *i.e.*, in-bred, they produce seed from which appear "rusty" plants and immune plants in the ratio of 3 : 1. It may be that there are *analogous* phenomena awaiting discovery in the case of man.

My general position is that our sentiments of solidarity and sympathy are too precious and too strong to admit of *much* social surgery or of the more thoroughgoing methods of reproductive elimination, which moreover assume the possession of more science than we really possess. On the other hand, there seems much to be said for restricting the reproduction of undesirables who fall back on the State for support, for some sort of marriage-tests, for developing a

social prejudice against reproduction among the victims of markedly bad inheritance, for a fuller and deeper recognition of women's rights both as to mating and maternity, for eugenic devices such as Mr. Galton has suggested, and so on. But there is one other suggestion I wish to try to express.

MILITARISM.

I cannot help feeling that there is apt to be a vicious circle in our argumentation over this difficult problem. To uphold our national supremacy, it is said, we require *inter alia* a military organisation with alert scouting intelligence, not only among the officers but in the rank and file. We are ceasing to breed this alert scouting intelligence in sufficient numbers; the nation is spawning incapables. We cannot relax one spine of our bristling national belligerence, for we have all our teeming millions to keep alive. But the question rises whether it is not in great part our pre-occupation with "Kriegspiel" that is responsible for that relatively exaggerated multiplication of the repressed and non-individuated, and for that relatively exaggerated infertility of the fittest, or of what we think to be the fittest. If we indulged in an era of "Friedenspiel," which may be even now approaching like a long-delayed spring-time, might not the sociological changes that ensued solve the problem which biologically seems so hopeless?

Statistics of what is often *called* "racial deterioration" are only too plentiful, and though they require more critical analysis and more guarded treatment than they usually obtain, there is no gainsaying that there are grim facts behind them; and without trying to make a scapegoat of militarism, it is difficult to silence the thought that just as Napoleon reduced the physical stature of the French nation, just as the wars of the Roman Empire rooted out the best and left Rome to a mob who made gods in their own image, so we are now paying the biological bill for past wars. Apart from the multiplication of "the social precipitate," *inter se*, is there not a persistent deposit of more precipitate from above, and may not the deterioration, which the military examinations,

for instance, reveal, be in great part due to the crushing burden of militarism itself? The suggested surgical methods to eliminate the "precipitate" from reproduction—if not from more—may be a little away from the point if the persisting social conditions are meanwhile securing a continuous deposit of more "precipitate."

If all the best heads in a deer-forest—such a dramatic illustration of reversed selection ("ob-selection") in many ways—are persistently shot down, the race of deer cannot keep up to the desired standard; if through militarism, and the spirit behind it, a human breed is being left for the greater part of its continuance to the less fit, it will not be surprising if history repeats itself and "Vir" is replaced by a mere "Homo." When we contemplate any national decadence—that of the Roman Empire is at a convenient distance—we may interpret the facts *biologically*, as an American zoologist, Professor D. S. Jordan,* has recently done, in terms of the reversed selection which spoiled the human harvest, or *psychologically*, in terms of the changed ideas and ideals of the average man, or *sociologically*, in terms of variations in the organisation of the societary form, but, fundamentally, these interpretations must be capable of a unification, and this it is particularly the task of the sociologist to work out. What more pressing problem has he than that of discovering what factors are now threatening to bring about for us results analogous to those which led to the Decline and Fall of the Roman Empire? Pre-occupation with the biological outlook—the breeder's point of view—will undoubtedly lead to fallacy upon fallacy, to the "materialisms" to which we have already referred; on the other hand, an ignoring of the biological point of view means a deliberate rejection of the order of facts which we can most precisely measure and test. Moreover, the commonplace is apt to be forgotten, that when changed ideas and ideals find physical embodiment in flesh and blood, they acquire, *ipso facto*, an inertia which no belated conversion on the psychical plane can ever do

* See "The Human Harvest," American Philosophical Society, April, 1906.

away with. Even Pasteur could not add "the cubit of stature" which Napoleon lopped off Frenchmen.

RELATIVE INFERTILITY OF MORE INDIVIDUATED STOCKS.

May I briefly refer to the other aspect of the fertility problem. The biologist accustomed to interpret great results in terms of selection and isolation acting on germinal variations, is not likely to be lacking in faith in what may be accomplished by attention to eugenics. But he finds it difficult to dispel the shadow cast by the fact of the relatively great infertility of what we believe to be types and stocks of high social efficiency. Over and over again in the history of mankind elect castes—true aristocracies—have arisen, only to disappear again in sterility, or in the course of inter-societary struggle. Even if the latter doom be averted by more evolved social organisation and racial pacification, how are we to face the fact of the dwindling fertility of what we believe to be the better stocks? It may be that the relatively recent diminution of the birth-rate among skilled workmen and the like is partly modificational or artificial, an adaptation to altered social conditions; but what can we say of the generally low fertility of the most individuated stocks?

The factors which make towards this result are probably manifold. There are probably, as Spencer maintained, automatically working physiological and psychical factors which lessen reproductivity as individuation increases. It may be that hyper-nutrition, sexual vice, the frequent absence of love marriages, operate in the same direction; it seems difficult to doubt that selfish celibacy and selfish non-maternity are in part to blame; and there are all sorts of possible factors down to the marriage of heiresses who are often the sole survivors of a dwindling family. Dr. Ireland points to the significant fact that some of the high castes of India (Brahmins and Rajputs) who are most exclusive in their marriages do not show the usual dwindling tendency, which may be correlated with the circumstance that they are mostly poor and abstemious.

Is there any consolation in the thought that quality

is always safe against quantity, that eagles need never fear the frogs who spawn, that an inheritance may persist socially even when a lineage becomes extinct biologically? Is there any warrant for supposing that the race can continue producing from new soil crop after crop of highly individuated types, each in its turn destined to die out as a penalty for its own efficiency? Is there any truth in the inference that failure in reproductive power is an expression of nature's verdict against dis-social isolation of privileged classes, against every self-contradictory denial of the solidarity of the social organism? In any case is there not need for getting rid of a prudery or selfishness which keeps some of the fitter types from recognising that they have another contribution to make to the race besides their work.

It should be borne in mind that precise thinking on the subject of fertility is still very uncommon, that there is no general awareness that the details of our dwindling birth-rate are suggestive of disaster, and that very few have what may be called an awakened conscience on the subject. The most commonsense precautions are quite disregarded. Falling in love is out of fashion, and almost non-mammalian types grow commoner. In a sense, though it is a pity, it may be just as well that they should die out. Or who, for instance, ever thinks of the wise Frenchman's saying, "My father was a farmer, I am a Professor, my son must be a farmer again?" But, apart from the slow diffusion of an interest in eugenics, perhaps the most promising line of activity is that of trying to promote social (including of course ethical) variations which may bring about more wholesome biological conditions.

ISOLATION.

The only other directive evolution-factor that biologists are at all agreed about besides selection, is isolation—a general term for all the varied ways in which the radius of possible inter-crossing is narrowed. As expounded by Wagner, Weismann, Romanes, Gulick and others, isolation takes many forms—spatial, structural, habitudinal, and psychical—and it has various results.

It tends to the segregation of species into sub-species, it makes it easier for new variations to establish themselves, it promotes prepotency or what the breeders call "transmitting power," it fixes characters. One of the most successful breeds of cattle (Polled Angus) seems to have had its source in one farm-stead, its early history is one of close in-breeding, its prepotency is remarkable, its success from our point of view has been great. It is difficult to get secure data as to the results of isolation in nature, but Gulick's recent volume on the subject abounds in concrete illustrations, and we seem warranted in believing that conditions of isolation have been and are of frequent occurrence.

Reibmayr has collected from human history a wealth of illustrations of various forms of isolation, and there seems much to be said for his thesis that the establishment of a successful race or stock requires the alternation of periods of in-breeding (endogamy) in which characters are fixed, and periods of out-breeding (exogamy) in which by the introduction of fresh blood new variations are promoted. Perhaps the Jews may serve to illustrate the influence of isolation in promoting stability of type and prepotency; perhaps the Americans may serve to illustrate the variability which a mixture of different stocks tends to bring about. In historical inquiry into the difficult problem of the origin of distinct races, it seems legitimate to think of periods of "mutation" — of discontinuous sporting — which led to numerous offshoots from the main stock, of the migration of these variants into new environments where in relative isolation they became prepotent and stable.

CONCLUSION.

My general position is that when we pass from organisms to human societies, the whole venue changes so much that we have to be very careful in our application of biological formulæ. (1) Thus in regard to processes of selection, we have to recognise the intervention of rational selection as an accelerant or as a brake on natural selection. (2) When a society deliberately sets to work to select discriminately

among the individualities which make up its own body politic, we have to do with an infinitely subtler process than that observed when a breeder selects in his stock, or when the physical environment eliminates the ill-adapted members of a race. (3) There is in human affairs a much more prominent occurrence of inter-group, inter-societary, or inter-racial selection, which introduces fresh complexities, *e.g.*, that in the conflict of races the apparent victors seem sometimes, in some measure, conquered by the vanquished.

In all selectionist proposals we have to face the difficulty of agreeing what we are to select for. If selection processes are to succeed they must be consistent. As to the negative ideal of trying to lessen the precipitate of undoubted incapables, all will agree; but the positive ideal of working towards evolution is necessarily vague, meaning different things to different people. It will be generally admitted, however, that if we are to avoid fallacious endeavour, our ideal must include "eutopia" and "eutechnics" as well as "eugenics," that it must be not merely biological but distinctively sociological in its outlook.

DISCUSSION

THE CHAIRMAN SAID

That he would endeavour to select from the vast scope and suggestiveness of the paper that had been read, a few points which seemed to him particularly suitable for discussion. At the same time he would ask those who took part in the debate to speak to definite issues and not to go over the whole paper. In the first place he took it that Professor Thomson conveyed the idea that there was a very definite recognition on the part of the Biologists themselves that not individuals merely, but integrates of persons, formed the true subject of study in sociological analysis. Next, passing to the body of the paper, they had had a very clear exposition of what was meant by "modifications" as distinguished from "variations." The third point was that of heredity, a problem which he ventured to think they could not escape from, and which was deserving of the closest attention and investigation on the part of sociologists. In this connection there arose, amongst other considerations, the importance of that social heredity which was expressed at once in the external heritage and in the intellectual and moral forces of tradition. The clearing up of that point was one to which members might well address themselves. Then again, the principle of selection had been set forth very fully and definitely, and here again the methods which had been suggested raised interesting points for controversy. For instance, there was the doctrine of natural selection; again, there was the question of the relative fertility of the fit and the unfit; and, further, there was the argument which raised the question of "Kriegspiel" and "Friedenspiel." Then, to pursue the subject still further, there arose the interesting question of race, and the further consideration which, in turn, arose out of that, viz., the question of

raising and improving the type. All these questions afforded abundant scope for discussion, and could be considered either in their concrete aspect or philosophically. Finally, there came the points involved in the doctrine "Isolation." Behind all lay the important question as to how far biological principles might be properly carried in the social realm. All these questions had been presented to them in Professor Thomson's most interesting paper, and afforded every opportunity for profitable debate.

MR. GRAHAM WALLAS SAID

That the reader of the paper had treated the problem of life from the point of view of the biologist and breeder. While recognising the enormous importance of the biological aspect, he felt that the question should be approached also from the standpoint of the type. It would be necessary to learn man's instinctive organisation, the series of impulses that lead to action. But it would be equally necessary to ascertain the medium in which these impulses manifest themselves; how they have been maintained in the past; whether a purpose could be discovered in their organisation. For instance, there was the common saying that a man loved his country. What was his country to him? He had the impulse of love; was it a name, or was it a conception, or, again, was it a generalisation? Only recently they had all been suffering from waves of emotional fancies about party—all their instincts had been aroused by either the Conservative or the Liberal party. What was that party to them—a party they had never seen? He only wished to impress the fact that, if they were to proceed from the breeder's point of view, it would be necessary to have a clear idea of the natural impulses and their relation to society.

MRS. MEREDITH SAID

That she wished to draw special attention to the fact that the emergence of the conscious woman's movement all over the world (by which she meant the taking by woman of her rightful place beside man in industry, art, science, religion, civil and political life, and last, but not least, in this matter of eugenics), the emergence of this movement coincided with, and was inextricably concerned in, the other movement referred to by the lecturer, namely, the superseding of the idea of the "struggle for life" by that of "mutual aid," of the "Kriegspiel" by the "Friedenspiel," and that this was further fitly symbolised in the fact that the first appeal to Europe to "lay down your arms," which resulted in the formation

of the Peace Societies, was sounded by a woman. It seemed to her that it would be well for the Sociological Society to lay special stress on this question at the present stage, precisely because, as the lecturer had pointed out, the favourable modification would not be maintained unless it passed over into the heritage of tradition, and it was evident too that men must necessarily become as deeply conscious of the significance of the woman's movement as women themselves, before the full harvest of results could be attained. And, finally, she would add that there was, at any rate, one point of view in which the biological and the sociological aspects found themselves fully harmonised, and that was the *maternal* point of view.

DR. J. LIONEL TAYLER SAID :

Agreeing so fully with Professor Thomson, I have little to add by way of criticism or comment. One point, however, bearing on the subject has occurred to me. The lecturer pointed out very clearly the necessity for realising that biological inferences could not, *without being interpreted sociologically*, be applied to social conditions. I think it needful to appreciate also that sociological inferences require an individual interpretation before they can be applied in society with safety. The individual is in some measure obedient primarily to the laws of his own nature, and only secondarily to social laws. It is of interest, therefore, to study where these individual and social sanctions are likely to become antagonistic. Societies are ethically justified by their collective capacities for realising the development of separate individualities, and sacrifice of individual powers can easily be pushed too far. What is biologically desirable for the race, sociologically beneficial for society, and individually satisfactory for the individual, are three aspects of every social problem concerned with life that have to be considered, and the integrity of individual character is not, I think, the least important of the three. Moreover, no social power can permanently enforce what is individually abortive, the individual ideal should therefore bear some relation to the social ideal, each line of investigation modifying unfavourable developments in the other.

DR. G. ARCHDALL REID SAID :

Much of Professor Thomson's paper commands my assent. There are one or two points on which I should like to comment, however.

He speaks of carefully "selected castes" of a society. Presumably he means biological selection, which implies the elimination of the unfittest. In that case I think he would find it very difficult to demonstrate

that any selection occurs in highly civilised communities other than that by disease and allied conditions. Clever, or big, or strong, or beautiful people do not appear to rear larger families than people of an opposite type; or, if they do, their superior productiveness is being reduced every day. Selection by disease and its allies is more stringent in the slums of cities than in better homes or in the country, but it does not differentiate class from class in the sense meant. Doubtless, attempts have been made to demonstrate that the various castes or classes into which English society, for example, is divided, differ innately from one another; but in every instance in which this has been done that very confusion between variations and modifications, between innate and acquired qualities which Professor Thomson deplures, has been perpetrated. It would greatly add to the usefulness of discussion if thinkers would give verifiable details when speaking of human selection and evolution. If selective causes of human elimination, other than disease, exist, surely they, as well as the resulting evolution, can be indicated. I am not aware of any evidence that man's physical parts, his lungs, liver, brain, hands, feet, and so forth, have altered during thousands of years. It is said that civilised man is bigger than his ancestors of a few centuries ago. But man is a slow breeding animal, and the alleged change was very rapid—too rapid to be due to a selection, under growing conditions of civilisation, of large individuals. Probably, therefore, it resulted from nothing other than a better development of the individual under improved conditions of life, and, in the case of the brain, from more strenuous use. Intellectually and morally man has an appearance of evolving very fast—but only an appearance. Apparently he differs from his ancestors of two or three thousand years ago merely in mental acquirements, not in innate qualities. The Greeks were more intellectual, the early Christians more moral, the early Buddhists more altruistic than any modern race or class. There is no iota of evidence that the various sections or castes of the community differ in anything but acquirements. Their relative rates of fertility, therefore, matter not at all from the biological point of view, especially if it be remembered that these rates depend almost exclusively, not on natural fertility or infertility, but on the possession of acquired physiological knowledge. If 75 per cent. of the population produces only 50 per cent. of the offspring the deficiency is largely due to deliberate choice. The assumption that stupidity has any necessary correlation with fertility, and intelligence with infertility, is certainly without warrant. The clergy are drawn mainly from that class which is supposed to be the most intelligent one; yet their families, on the average, are large. They simply do not choose to avail themselves of contemporary knowledge. It may be that intelligent people have fewer children than stupid people, but that is because, rightly or wrongly, they have other interests, or look farther ahead.

Professor Thomson speaks of the application of Mendel's laws to crossed human populations. Members of almost every human race have crossed with members of almost every other. I believe it may be asserted confidently that in no instance has the occurrence of a single Mendelian phenomenon been recorded. The races blend perfectly. If there is no evidence of alternative inheritance when races are crossed, there is not likely to be any when classes are crossed. Here again it is desirable that surmises should be supported by verifiable evidence. The materials for study are ample and easily accessible. In North and South America, for example, there has been an enormous amount of crossing in every degree, and for centuries.

MR. PARMESHWAR LALL SAID :

The ordinary results of close intermarriage are not visible among the Brahmans, Rajputs, and other castes of India, not because of the poverty of these caste men, as has been suggested, but because of the numerousness of the members of these castes. India is a very large country, and these castes are to be found stretched over very large areas. The different provinces of India differ sometimes as much as the countries of Europe from one another in climate, manners, etc., etc. The castes of Brahmans and Rajputs are to be found in all the different provinces and they intermarry. This keeps them from feeling the evil effects of close intermarriage.

But the evil effects of close intermarriage are very patent among those castes that are not numerous. Thus, connected with all the places of pilgrimage in India are a class of hereditary priests who form each a caste of their own. They are generally known as "Pandas." The Pandas of any one of these holy places would not marry outside their particular caste. Their number is visibly diminishing. Their marriages are not as fertile as those of the rest of the Indian people. The Gayavals of Gaya numbered about 5,000 families at the beginning of the last century. To-day they count hardly above 2,000 families. The men and women of this caste are fine and handsome. But their marriages are not fertile, and consequently their numbers are fast diminishing. And there appears no other cause of this decrease except the closeness of their intermarriage.

WRITTEN COMMUNICATION

FROM DR. C. S. MYERS.

At first sight two of Professor Thomson's statements present difficulties owing to their apparent incompatibility. In the first he maintains that the generalisations of sociology cannot be imported from biology, but that they must be inductions from a study of societies themselves. In the second he states that the aim of his paper is to illustrate the sociological significance of various biological generalisations. One may reasonably ask whether biological generalisations can have any sociological *significance* if sociological generalisations cannot be imported from biology.

While Professor Thomson has pointed out that biological generalisations may be of use in *suggesting* sociological truths, he would be the first to guard us against the assumption that what occurs in or is best for the Individual, necessarily occurs in or is best for Society. His paper, however, is not concerned so much with tracing analogies between the character of the individual and the social organism, as with applying biological generalisations directly to social phenomena.

The answer to the dilemma which I have raised seems to me to be this. Generalisations concerning variation, heredity, isolation and the like are the property both of biological and sociological science. The life of the individual organism has to be studied not only by examining the individual organism itself, but by observing the effects which his social or other environment produces upon him. So, too, the life of the social organism has to be studied not only by examining the social organism as an entity, but by observing the effects produced by social conditions on individual organisms. Biology and sociology thus have a common meeting ground, and are not to be so sharply defined from one another as many may suppose.

Biology in its widest sense includes psychology, and I could have wished that Professor Thomson had considered more fully the extent of variation and evolution in mental qualities, as factors in the genetic and comparative aspects of sociology.

PROFESSOR THOMSON'S REPLY.

It was perhaps the very general and introductory character of his paper that was responsible for the fact that many of the speakers, instead of following the lines of discussion so well suggested by the Chairman, had confined their remarks to the outskirts of the subject.

The question of the best definition and most convenient delimitation of biology and sociology was not perhaps very urgent in comparison with the practical problems suggested, *e.g.*, what can best be done in face of the menacing disproportions in the fertility of more and less individuated stocks. His point, however, was that the biological outlook does not concern itself with a societary form as such, and that to ignore the higher synthesis involved in every society, however simple, was to deny the *raison d'être* of sociology. The purely biological outlook on human society is abstract and partial, and leads to "materialisms" and other fallacies unless it be supplemented by the distinctively sociological outlook. It was, however, a necessary propaedeutic to sociology.

A sound sociological ideal must include a sound biological ideal, but in point of fact the two ideals were continually clashing, and while working towards their practical unification we had to make temporary compromises, recognising always that while the biological ideal was fundamental, the sociological ideal was supreme. Herbert Spencer has said that "a nation of good animals is the first condition to national prosperity," thus expressing, in part, the biological ideal. But it had been one of the aims of the paper to emphasise what was really a commonplace, that the biological ideal—far-reaching as it was—had to adjust itself to the fact that every human societary form is an integrate of social persons, with a life and mind of its own, and more than the sum of its parts.

At various points in the paper he had also tried to

guard against any narrow conception of the biological ideal—it implied more than the improvement of the physique of the breed, it implied eutopias and eutechnics (wholesome environment and healthy function) as well as eugenics.

Dr. Archdall Reid had frankly stated the pessimistic position that the only selection in highly civilised communities was elimination by disease and its allies, and had asked for demonstrable evidence of any other mode of selection. In the paper a very different position had been indicated: that selection is at work whenever and wherever the degree of effectiveness is of critical moment, not merely in helping survival at the time, but in strengthening foothold, increasing comfort, lengthening life, promoting reproductive success, and so on. Every purchase based on an intelligent criticism of consumption, every preference given to skill and alertness, every dismissal of a careless and stupid workman, every premium in favour of education and morale, and so on . . . must set a selective process at work, whose results may not be demonstrable until many generations had come and gone, which will, however, be as sure as they are slow, provided only that the selective process is *consistently* kept agoing.

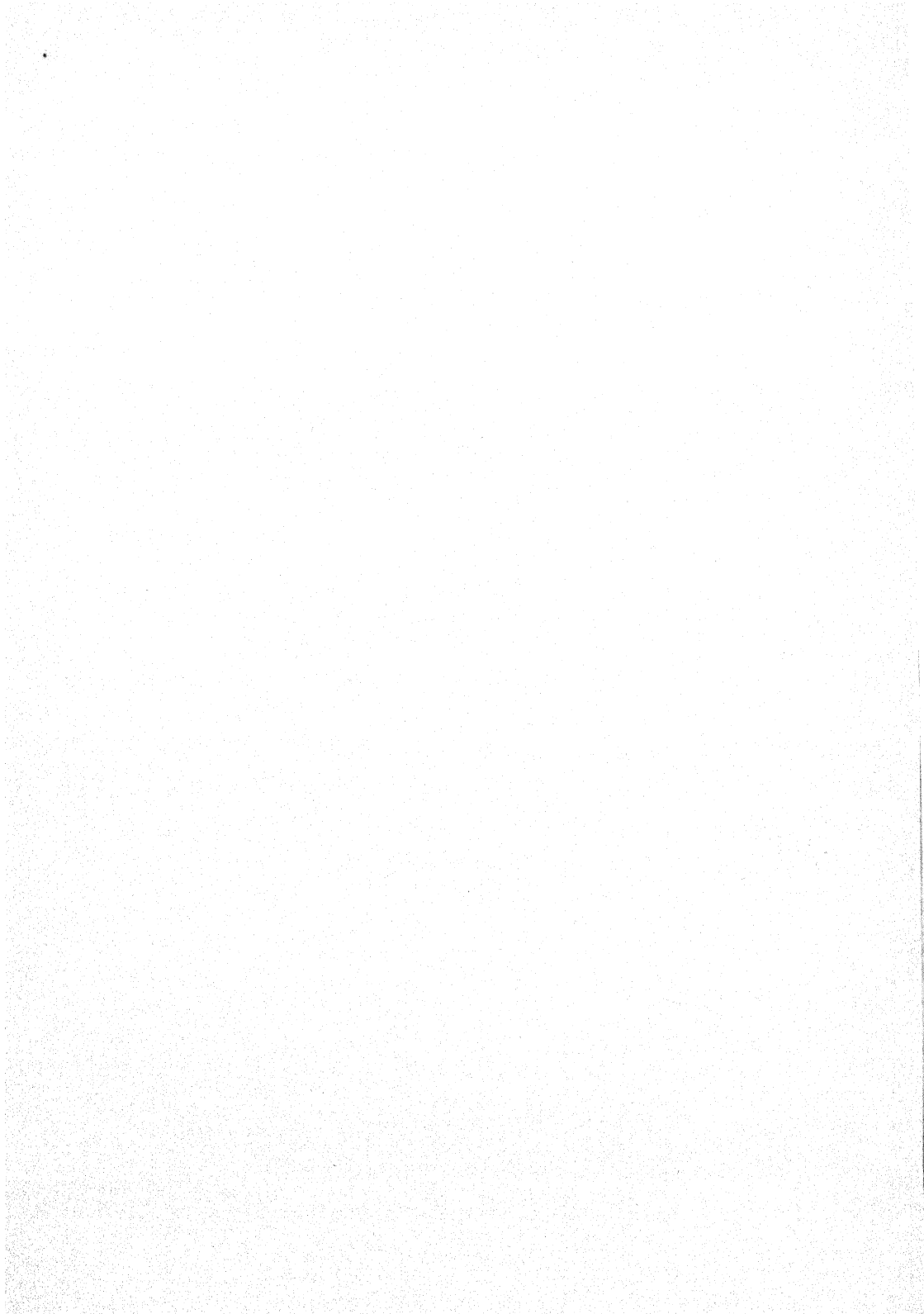
It did not appear to him that statistical enquiries corroborated Dr. Archdall Reid's conclusion that the various sections or castes of the community differ only in acquirements (modifications), or his interpretation of the unequal rates of fertility as almost exclusively due to the possession or non-possession of physiological knowledge. But the clear criticisms from the author of "The Principles of Heredity" were very valuable.

He was obliged to Mr. Parmeshwar Lall for his correction as to a matter of fact concerning the castes of Brahmans and Rajputs. It was pointed out that in these castes the results of exclusiveness of marriage were not observable because the range of inter-marriage was very wide. It was also stated, thereby corroborating one of the points of the paper, that in other castes, small in numbers and with close endogamy, there was a rapid dwindling of fertility. This was the biological nemesis of "caste," and very familiar

to breeders, with whom, however, he must plead, biologists must not be identified.

If he might put the particular point of his confessedly introductory paper in a sentence, he would submit that biological formulæ and ideals require to be *socialised* in their application to human affairs.

**SUGGESTED PLAN FOR A
CIVIC MUSEUM**



A SUGGESTED PLAN FOR A CIVIC MUSEUM (OR CIVIC EXHIBITION) AND ITS ASSOCIATED STUDIES.

By PATRICK GEDDES.

Read at a Research Meeting of the Sociological Society, at the School of Economics and Political Science (University of London), Clare Market, W.C., on March 19th, 1906, JAMES OLIPHANT, Esq., in the Chair.

INTRODUCTION.

The present paper may be read independently, yet is to be understood as continuing those on "Civics, as Concrete and Applied Sociology" which will be found in the first and second volumes of "Sociological Papers," now in the hands of members of the Society. In the first of these I have tried to outline the observational method of studying cities, the mode of approaching them from the standpoint of geography and history; while in the second I have attempted the theoretic interpretation of the city. Thus, in addition to the everyday facts of the gazetteer, the particulars of place and industry and people, which make up the everyday "Town," we have also to consider its everyday range of information and practical ideas, and the mode of imparting the corresponding knowledge, *i.e.*, its "School," in the widest sense. We have to consider too its "Cloister," *i.e.*, its determinant ideals, its speculative ideas, its artistic resources, confined though these so largely are to the study of the

cleric or of the student, to the studio of the artist, to the hopes of the social reformer, or to the solitary meditations of us all. For it is from these cloistered thoughts and aspirations that we may best proceed to interpret such elements of the City proper as our poor modern world can show, as being the projection, the materialisation of these;—the ideals determining its Polity, both spiritual and temporal, the ideas its Culture, and the prevalent imagery its public Art. In the general everyday life and aspect of our urban environments, then, more or less of all these elements can be deciphered.

Such are the two main lines of investigation with regard to cities worked out in these two preceding papers, from geographic origins to sociological and psychological interpretations. We are now ready to consider the comparison of cities, their classification and respective rank; and these both as regards the fundamental elements of economic efficiency, and the supreme elements of civilisation. As a means of undertaking these inquiries, and also of applying their results, I now submit the practical proposal summed up in the present title of "A Suggested Plan for a Civic Museum (or Civic Exhibition) and its Associated Studies." In the existing world of social observation and sociological discussion around us, we have an almost innumerable variety of specialised studies: the geographer studies the place; the economist its industries, exchanges, finances; the statistician enumerates its people; the politician modifies their laws or institutions; we have applications of natural, technical, and medical sciences; we have investigations of customs, of laws, and of religions; and so on; but all these admittedly still lack co-ordination; indeed, the need of this is becoming increasingly felt. Hence those discussions of methodology with which this Society, like every other group of sociologists, has been so largely concerned. Without throwing any discredit upon such studies, in which, indeed, I feel the keenest interest, I submit that besides the current abstract method of scientific arrangement, there is also a concrete and experimental one. We learn by thinking, it is true; but we also learn by living: *Vivendo discimus*. Let us be developing our civic

consciousness, our civic conscience, our active citizenship; our puzzles about methods will thus be found largely to be resolving themselves. This principle has often been found to apply even in the most abstract fields, those of morals and ideals, of philosophy and the sciences, of arts and letters, of poetry and imagination; for though in all these we constantly engage in abstract considerations, we are wont also to inquire how these have been concretely expressed in the achievements and the productions of the past, embodied in its polity, in its culture, in its art. Let us be asking then: How may we most practically advance these ideals now? How advance this and that worthy interest in the actual city? In the measure in which we can define worthy aims and further them, we shall be reaching a measure of theoretic agreement among ourselves.

A.—THE CITY IN GENERAL SURVEY: HOW AWAKEN CIVIC CONSCIOUSNESS?

Let us then be observing each city from the standpoint of its present, with Mr. Booth and his invaluable survey of London, and its related literature. Let us also be considering the past history of each city, and relating it to its present development; above all, I repeat, let us seek to take some practical part in this, thus continuing our review of the past and our survey of the present into some rational forecast of the civic future, which thus becomes no longer purely speculative, no longer Utopian in the vague dreamland sense, but Eutopian in the definite sense—that is making the best of this place here. This word Utopia has been too commonly misunderstood: is it not plain that More and Erasmus, both not only humorists but rival punsters, each delighting in word-play beyond other writers, even at that time of supreme command of language both learned and vernacular, hid in this word "Utopia," which is neither English nor Greek, two alternative readings and meanings, of "Outopia"—nowhere; and "Eutopia"—place of beauty,—here, therefore, if you will.

A simple pun, doubtless, yet one which has too commonly escaped the shallow cynicism which has seen only the pessimist alternative and fallen into its trap; whereas, with the later sage of Chelsea, we should see that it means "Our America is here or nowhere."

We thus reach the full conception of the City, the general view to which the study of every city leads, that not only of the elements of a vast comparative *Encyclopædia Civica* yet to be realised, but of the drama of the City, as forming a Trilogy—that of its Past, its Present, its Future. It is all these which have to be brought before the imagination of the citizens, and from their youth up: hence these have all to be set forth not only in the written but the spoken word, nay more and more fully expressed and realised in picture and statue, in literature and in drama, in pageant and in project. These literary and artistic presentments of the Trilogy of the City must of course be in due harmony with the scientific facts and possibilities of the case; they must correspond to the historical and critical, the sociological and interpretative sides of our *Encyclopædia Civica*. Furthermore, it is very largely in terms of these civic studies and presentments, these actual contacts with living communities that the science of sociology must descend from that cloudland of the abstract into which it is so apt to pass, and must increasingly find its more vigorous scientific life as well as its applied activity. But to accomplish all this we must more fully arouse our civic consciousness; we must widen and deepen it.

In the ancient world, and throughout the mediæval past, the social consciousness was largely, indeed fundamentally, civic; but since the Renaissance, still more since the 18th century and its Revolution, we have become dwarfed into "individuals," rather than developed as citizens. The brief fashion of the word "citoyen," so rich in noble associations and meaning, thus indeed fell into disrepute. Our individual existence has in some respects become more accentuated, but our civic relations are far less developed than they were of old, and with these many of the highest elements of individuality have fallen away. Here, in this vastest of all cities as regards

numbers, is it not everybody's experience that the individual is less of a citizen than has been the case in any older order of things; so that what should be seen as a ghastly paradox has become a mere commonplace, that this "greatest of cities" is as yet the least developed in citizenship. We have, it is true, generous citizens, a pre-eminent Lord Mayor, an indefatigable County Council—much therefore to be thankful for; yet does not all this as yet mainly confirm the usual and general impression of London, as still essentially rather the biggest of village-groups than in any deep sense the greatest of cities? At any rate, it will be granted by all, that our modern feeling of citizenship will stand being considerably more developed. But this is not easy. This lack of citizenship is not merely a moral defect to which we can be aroused: it is an intellectual defect also, a great scientific difficulty to be overcome; in short, a puzzle of theoretic sociology no less than a problem of education towards citizenship. How can we hope to become aware of this stupendous city around us? How can we hope to create a Civic Consciousness? How from this vast Babel of speech and thought, this correspondingly heterogeneous *mêlée* of action, are we to develop any ordered concept of the city's life, much less any effective co-operation in it? Yet could we but do this, we should be less of mere mechanical elements of our city; it would begin to find its consciousness and its expression in us, and these reach higher levels of thought and action in the individual. Thus, obviously, I am suggesting a heightened individualism, not a lower. The "Superman," of whom we hear so much and see so little, will thus not be, as so many appear to think, a mere bigger egoist, but a greater citizen.

The ordinary methods of acquiring some increase of civic consciousness are two. We plunge into the world of travel on the one hand, or into the literature of cities on the other; and both these resources are assuredly of high value. But even suppose we attained to an almost world-wide observation, an encyclopædic reading, and to our travel added knowledge; had we seen all cities, read all libraries; had we mastered all this and interpreted it, we should still

need some way of presenting these vast and varied accumulations to others, of conveying their best results to our fellow-citizens. There are, indeed, various methods. Those of art are perhaps first worth noting. As an example of civic art of high sociological value, let me cite a recent Paris opera, "Louise," by Charpentier. This, taking for the central element of its simple plot a too common incident of city life, the seduction of the workman's daughter, for that very reason puts on the stage in every scene Paris itself, and makes us conscious not only of its panoramic aspects, its teeming life, but of its strife of good and evil, its strangely mingled soul. By all the resources of spectacular art, of music, of drama, the great city-existence is here cumulatively expressed, the social life made conscious in us; so that here, for the first time perhaps in our experience, we see a play in which the persons pass virtually into the background, and the city itself becomes not merely the scene, the milieu, but the very agent of the drama, indeed its essential actor. Again, a great poem may be cited: Thomson's "City of Dreadful Night"; or again, "Les Villes Tentaculaires" of Emile Verhaeren. Each is a new "Inferno," and both, in their impressionist intensity, their actuality and horror, their tremendous evocatory power, may be reckoned the deepest, as well as the most tragic expressions of modern city life as yet produced by the literature of the world.*

B.—THE CITY: HOW ATTEMPT ITS SCIENTIFIC PRESENTMENT?

What then is needed for a correspondingly adequate scientific presentment of the city? That is the problem before us as sociologists. On the principle of proceeding from the generally known to the less known, we may assume that everybody has before his mind some concept of "London,"

* See also in this connection the scheme of Charles Dickens' "Ideal Periodical," in Forster's "Life," Vol. II., and especially his conception of "a certain Shadow." Under this strongly personal image, the reader will find no ordinary presentment of the very spirit of sociology and civics, though these names are of course not employed.

and of "Empire." Starting, then, with these everyday conceptions, vague and ill-defined as they mostly are, how can we develop them into positive and definite science, that is into orderly description and rational interpretation; and how make these applicable towards the guidance of action? London is too big for us: nobody has ever seen it in any complete way, nobody ever will; it is a world in itself. Here it may well be remembered that according to the first great writer upon cities, Aristotle himself, one's view of the city should be "synoptic," and this literally and concretely: he means that one should be able to see the whole of it, to survey it at a glance. Aristotle's actual city of Athens, his ideal city also, was one which you can most thoroughly overlook, and this in the literal sense, not in either of the contrasted metaphorical ones, which at best "supervise" with the purblind bureaucrat, when they do not practically ignore with the unthinking politician, and so explain the comparative failure of both. It needs to be emphasised that Aristotle's clear thinking, indeed the clearness of Greek thinking generally, was in no small measure the expression, indeed in great part the product, of the panoramic beauty and intelligibility of Greek cities in general, and of Athens in particular. Let us take therefore, as enough to start with, a single one of the constituent cities of London; take Westminster, as in some ways the most interesting, and in its main aspects the most intelligible to the student of sociology, more even than the "City" itself. Taking Westminster then as an initial City-Type for observation, we must look at it, and this literally, and from various points of view. With the topographer we must see "the whole place," the specific area with its streets and buildings, its whole material situation and magnitude and existence. For many of us, all this geography has an intense visual interest; it is vividly attractive and expressive from the æsthetic point of view; it is a place full of interests for painter, etcher, photographer. But for some again, this Westminster is not so much a place as a people, a vast hive of living beings. Among this new class of observers, the simplest, the most precise and general therefore,

is the registrar, with his "movement of the population," his simple biological observations of births, marriages, and deaths; while his colleagues of the census follow with their medical, hygienic, economic interpretations. Others again see in these living beings not primarily their facts of multiplication or disappearance, of health or disease, but their mentality, their characteristic psychology; for only the psychologist of London can ever know his Westminster. Yet others again will look on Westminster in terms of its very varied measures of economic well-being; whilst most of us think of little in Westminster save the vast national and political life which centres in it. Yet many think primarily of Westminster as a spiritual city, as containing something even greater than this working centre of temporal power—the focus of national history, the central shrine of the noblest traditions, of literature and life. Westminster has plainly each and all of these different aspects; but while the whole of these elements may and do exist in some measure in every mind, one, more, or most of them, may often become lapsed, and therefore practically lost; and especially is this apt to be the case among the various specialists concerned, who have acquired the habit, at once a quality and a defect, of concentrating on this or that particular element above all others—it may be the material buildings and streets, if they are architects or owners of property or the like, the æsthetic aspects if they are artists, the hygienic aspects if they be medical in mind, the psychological aspects if they be pedagogues or novelists. It will be the temporal aspects if they be political, the spiritual if the religious, the poetic, the traditional interest predominates. We thus distinguish half-a-dozen main groups of specialisms, each of which tends to exclude the others to far too great an extent; hence it becomes necessary for us as students of sociology to try to use the results of all these different specialisms, yet to avoid the limitations of their cultivators, by uniting all these various partial concepts of the city into a single living whole. Let us see Westminster then, in this fully "synoptic" way, in terms of all its aspects; so standing once more, like Aristotle, both at the outset and

the climax of his civic studies. These, as already suggested, were in no small measure planned from the Acropolis, or even better from Lycabettos Hill, which gives the fullest of all outlooks over Athens; while to us here this synoptic view may be imagined from one or other of the many towers of Westminster, practically functionless though these have all become—each a visible, literal symbol of the lapse of synoptic, civic thought, and with this of the corresponding synergy of citizenship. We look then at our city anew in this way; but now with the resources of each of these main sciences, both objective and subjective. From the physical side we need to realise its geographical situation and its climatic conditions, from the biological its health and its bacteriology, from the social its life and labour, its comings and goings. We utilise the standpoints of each and all of the various arts and sciences; for it requires every one of them to investigate a city. The meteorologist with his barometer, the bacteriologist with his germ-cultures, the chemist with his air-analysis, in short the student of every preliminary science is called for in turn by the sociologist. Most emphatically also is the artist needed, and this not merely to recall or renew the past, but to present to us in picture, in drama, in poem, the vivid life around us, the changing social world. So too are the teachers of all ages and subjects, the moralisers of all denominations. Our civic sociology needs all the sciences and arts; and thus, practically, begins to work out the long-sought methodology of them—the unification of the sciences, the orchestration of the arts. We press then into the service of the sociology of the city all the various specialisms of all kinds, all their many workers, and this whether they recognise us, or each other.

C.—THE CITY IN ITS REGIONAL EXTENSIONS AND RELATIONS.

From Westminster we may pass East and West, South and North—to the City and the East End, to Chelsea, to Southwark and to Hampstead; in fact to and through all

the many cities and boroughs of which this vast congeries is made up; and so gradually we approach a comprehension of this colossal London. Yet really to understand London, we must widen out a step further; from the city of four millions we pass to the "County" of six million people, a province, indeed a nation in itself. This step in our consciousness has been made distinctly in recent years, and is ever being made more fully. In the same way, we must take into account the whole of the Thames Valley, and even the "Home Counties," of which the very name indicates this as being their aggregate County Town. Far more important, and more generally, we see London as "the capital of England," but this first, and largely still, as the sub-capital of England in the narrower and stricter sense; and then later as victoriously centralising the minor sub-capitals of Ireland and Scotland, and thus becoming increasingly Capital of the United Kingdom. Beyond this we see London expanding into the metropolis of an Empire unprecedentedly vast; and here at length it reaches for many its definite term. Yet this development of these various stages of our expanding civic consciousness goes on, in a regular and progressive way. This may be presented in the simplest diagrammatic table, as a column of names to be read in the usual way downwards, viz.:

Westminster (in local interests)

.....
London "Town"

.....
London County

.....
London sub-capital (English)

.....
London Capital (British)

.....
London Metropolis (Imperial)

.....
London (English-speaking)

.....
London (European)

.....
London (World-City)

Here then is the essential outline and plan for our needed civic museum. For to each stage of this extending conception of the city, each new plane of our thinking, a definite room or storey of our civic museum would have to be devoted. Say, first, one room for each of the little old towns which have made up London; first the Abbey-town by the ancient ford of Westminster, and next, the Bridge and Port and Tower of London City. Thereafter we have to present the royal and abbatial city of Westminster, the mercantile and cathedral city of the Middle Ages, as themselves developing, absorbing their many minor neighbours, and growing up successively into the sub-capital of England, the capital of these Islands, the Empire-City, Megalopolis itself. As we noted above that many minds specialise upon single aspects, material or mental, temporal or spiritual, so there are minds which become arrested at each of these levels, fixed upon this or that storey of our museum-tower. High in the first and earliest we find, and utilise, and leave, the individual whose pride is to place himself at "the purely æsthetic point of view," or at "the purely scientific," *i.e.*, who boasts the non-attainment of any civic consciousness whatever. Leaving such an eminent specialist high and dry upon his pinnacle of culture (often too readily to fall, and be engulfed by the narrowest of those local interests which repelled him), we enter upon our extending civic surveys, but we do not at first reach the larger London; we become indeed citizens of a sort, but we remain "Cockneys" if we go no further; and there are cockneys in every city. It is as our interests and our thought-range widen, that we see London (and within it, Westminster) successively in terms of each of the larger unities of which it forms a part, and thus our civic consciousness extends and develops, while our cockneyism tends to disappear. Yet we may be once more arrested; for just as the cockney was limited to his immediate local outlook, so now, limited to the imperial outlook alone, the "Jingo" appears; each being but a mind limited to his particular regional outlook, that of Sub-capital or of Empire-capital respectively.

Next, however, our evolving London citizen awakens

to an even wider and more difficult range of interest and problems and conceptions than those of Empire. First comes that of London as having a part to play, not only in its own Empire, but as the greatest city of the English-speaking world; in many ways, therefore, it fairly claims to be the spiritual capital for the United States itself; and thus our jingo becomes a Greater Briton, and a saner one. His vision expands from England and Britain, to a larger outlook over Greater Britain and America. (Why not call them Briterin and Unistates?—and, still more briefly, Britamerin?) Beyond all this—our modern Hellas though it be—lies no barbarian world; London has to be surveyed and estimated anew as a city of European civilisation. There are good Imperialists, good Americans, who are still bad Europeans; but with this widened conception of London as one of the very greatest European centres, appears the Culture-City, one surely claiming ever a larger place among the capitals of our whole Occidental Civilisation.

Yet even on this high level Westminster is far from fully intelligible, until we think of it also as, despite all defects and blemishes, one of the few sacred cities, and this not only of nation or language alone, or even one of the historic centres of Christendom, but as having a wide and deep relation in the past to that old Orient from which our occidental culture has so largely come. And even this conception once more must be widened out, until we view it in its place in the whole world of men, and as in its turn a focus of human evolution; increasingly a centre of world-influences beyond our powers to estimate or to foresee.

All these various aspects of the city must be taken together, yet also kept clear and therefore so far separate. These storeys are the different chess-boards of thought and action, on which the complex and manifold game of London life is actually being played. London has all these relations in simultaneous activity; and it is only as our perspectives enlarge, as our horizons extend, only when we have included our contacts with the whole World in our city, that we have begun truly to see and understand our City in the

world. Nor can we otherwise understand even ourselves; for in each congeries of individuals, however gathered together, or meeting in the crowd for the first time and the last, every one is carrying with him his manifold individual web of relations, and is planning his own particular moves in the great social game upon one or more of these successive widening boards, it may be upon each and all of them. To make these various areas and aspects and activities intelligible, to set forth these various practical chessboards of life, is a main task of a Civic Museum. We have recognised at the outset the limitation of the specialist who, in seeking for beauty only, or knowledge only, or health only, or education only, or anything else only, forgot the other needed elements of civic life; hence all our interests, our policy, too, must have some relation to all these various aspects, and upon each and every one of these widening levels.

Again, it is only as we retrace our steps from the very widest conceptions of all that our civic consciousness grows complete. For is not our example, Westminster, perhaps that one of all cities in the world which is most widely related, through its temporal relations and its spiritual influences, to the whole world to-day? Thus through each and every individual city, albeit in varying measure, all the great interests of mankind come and go.

D.—SUMMARY OF THE PROBLEM: EXAMPLES OF ACTUAL BEGINNINGS.

The thesis I seek to lay before the Society is that we should educate ourselves and others, and this as fully and vividly as we can, to think of the city in each and all of these various definite and concrete aspects, *viz.*, physical and biological, economic and governmental, ethical, psychologic, and æsthetic, and these through all this widening series of geographical relations, from our immediate neighbourhood to the world. Furthermore, that this is no mere elaboration

of civics, or even of sociological studies of all kinds, but that it lies at the very heart of the educational problem viewed as a whole. Little though educationists as yet commonly see this, it is in fact the prime educational problem before each city; for it includes, it absorbs, it restates, each and all the traditional or would-be "practical" ones as yet more prominent to the pedagogic, the administrative, or the public mind.

This relation of Civics and Education clearly stated, we must necessarily take stock of such definite means as we possess, or can obtain, of presenting these different aspects to eye and ear; and of using for each approach to sense, feeling, and reason, every resource within our power. Let me express this yet more fully. Imagine, therefore, one by one our different museum rooms. In my own particular workshop of civic studies, with its associated civic laboratory and social planning-office, instead of Westminster one actually starts with Edinburgh, but in principle this will serve. Around the frieze at top of our City Museum-room runs a series of mural paintings, which give a broad general impression of the city in various characteristic aspects. For Edinburgh this is no doubt peculiarly easy, with its picturesque aspects, its magnificent geographical situation, so that the main approaches by sea and land give just that general conception which geographer and sociologist desire, while its varied contours and the historic medley of its monuments and streets no less bring out conspicuously all those main aspects of every city which we have been outlining. Yet similarly for Westminster, for the City, for Chelsea, Hampstead, and all the other constituents of London, neither picturesque material nor artistic skill is lacking; and these should be utilised in our civic museum from the very outset. People always will have decoration: the utilitarian who affects to despise or ignore this simply takes it in forms conventional or bad; but spends for it all the same, indeed generally even more. Without wishing to speak evil of the architecture of the hospitable room in which this Society meets to-day, I venture to suggest that the wall spaces here occupied by rather

uninteresting ornament might have been more profitably devoted, *i.e.*, in ways more in keeping with the educational purpose of this building, to the expression of the main aspects and the nobler idealisms of human activity, to the record of the everyday facts of economic life, or to both, in such measure as the æsthetes and the utilitarians upon its governing body might settle between them. Such decoration need not have cost so much, and would have been more educative in every way. Is an instance asked of where such things are actually done? One has only to go from this University of London to that of Paris; there, entering the Sorbonne, one sees how the great painters of France have expressed in each of its amphitheatres the subject, the aims, the spirit of the particular science to which it is devoted; and then, entering the Great Amphitheatre of the University, one finds, in the masterpiece of Puvis de Chavannes, one of the greatest decorative pictures of all time, and the expression of that synthesis of culture towards which has ever pointed the best university thought of every age.

To return to our smaller and less ambitious, yet thoroughly cognate type - museum of Edinburgh, we have to bring together the contrasted views, say rather the complementary perspectives, of the geographer and the sociologist; and so below our painted frieze comes the wall-space with its historic maps and pictures, the bookcase with its literature, its details of reference, and in the centre of the floor again a synthetic presentment, a concrete relief-model which enables the spectator, as it were, to float in a balloon above the city, and to realise its situation and its growth as fully as may be. Such then, albeit as yet in little more than beginnings, is at least an initial outline for a civic museum, small and incomplete of course, yet definite enough to start with. Around the geographical relief of London, then, let us accumulate not only the literature of one after another of its component cities, but their geographical and pictorial presentment. Thus we may gradually bring together a collection illustrative of London as it was and as it is,

and of its constituent elements. We should thus obtain a common and concrete centre for our citizenship quite independent of our individual parties and policies, theories or persuasions, say rather one common to them all, illustrative of all their origins and of their vital elements to this day. Even in its small beginnings, such a collection soon becomes what a museum should be, a centre of interest, and by-and-by of common reference, to all comers; and at each point where any visitor feels it to be unsatisfactory, as well he may, let him by all means make his contribution, of objects or of labour, to complete it in the respect in which he feels it to be defective.*

E.—THE CIVIC MUSEUM IN FULLER SOCIOLOGICAL OUTLINE, AND EDUCATIONAL USE.

So far the beginnings of our civic study, but it has yet to be more complete. Not only is the question asked: What of the history of the city? but next—What of its interpretation? In the first of this series of papers on Civics ("Sociological Papers," Vol. I.), I have already outlined a sketch of such a historical and developmental summary, and insisted that the adequate survey of any city requires to start not only with its topographical situation, but with its associated anthropological and archaeological origins, its elementary occupations. From shepherd-hamlet or forest-clearing or fisher-haven, from hill-fort or cross-road, from ford or bridge, we proceed; and we thence gradually trace from these early beginnings their modern developments.

But science is not only geographically descriptive and developmental; it is comparative; and above all, it is historical. Hence each antecedent type of city must be studied before we can really understand our own. Hence it is that we explore the ruins of Nineveh, excavate Babylon, Jerusalem, Athens, Rome; hence we search the written records of all these past

* See "A First Visit to the Outlook Tower." Outlook Tower, Edinburgh, 1906.

civicisms which we too vaguely call civilisations, too often practically forgetting the literal meaning of that word, vitally civic as it was, and as it must ever be. The results of all these inquiries we are happily accumulating; not only the British Museum or the Louvre, but minor museums everywhere are thus rich in materials for the preparation of a comprehensive presentment of the various elements of our civic heritage. We must go through all this to construct that full concept of our city throughout history which is our desideratum here; and selectively to utilise the historic treasures of the British Museum thus becomes as definite a study for the civic museum-planner as it has become for the historic novelist or playwright. Nor can we pause with the scholar specialists who confine themselves to the city cultures of the ancient or the classic world; we have to deal in the same way with mediæval cities, from Byzantium on through the Mediterranean, and thence by way of Venice and by Florence to the north; and again through Germany and the Hanseatic towns, through the antique cities of the Netherlands and of France to those of our own islands. Once more we have to renew our journey with the Renaissance, starting from Constantinople once more, traversing Italian and northern cities also. This time we turn to South Kensington Museum with its heterogeneous treasures, as yet awaiting not only space for their educative arrangement, but historic and sociological insight and civic feeling. In this way our civic museum is growing, from its small individual beginnings, its small local dimensions, to absorb the essentials of all other museums; it is thus becoming a type collection, an Index Museum to the world of culture, each of its successive rooms having to furnish a summary and a signpost to the great culture resources around us here, an aid to their educational use. We thus readily arouse a fuller interest in visiting these great collections, and in making more complete use of them, towards building these up not only into our own personal education, but into the living presentment of the past of the great cities. Of this, all we at present call education offers too little, beyond

palimpsests, vestiges, skeleton fragments, to represent our rich and varied heritage from all the civilisations.

Here then, in this scheme, now one of Civic Education—and thus of Civil Education, of Civilisation—there at once and plainly appears that reconciliation of the sciences with the humanities, which is so often hoped for, so seldom realised. The history and the ideals rightly treasured by the scholar, Hellenist or Hebraist, would here be not only recorded and catalogued as in libraries, summarised as in lecture or encyclopædia, but presented with a new vividness, a fresh force, at once artistic and scientific. Even for the understanding of our present everyday problems, it is well to know how these have been solved at various stages throughout the great civic past; and hence, whenever the pedagogues of traditional types have been stayed from their crushing of youth under grammars and dictionaries and examinations, when they are driven out from behind these poor ramparts of books which are not books, and “authorities” which are no longer authorities, into the open world of the sciences—and so lose all their traditional monopolies—they may for a moment wail that “Greek and Latin are lost,” or even that “Religious Instruction is in danger;” yet it will soon be found that nothing really of worth has been lost of either the classic or the patriarchal past. What science seeks to cast out is only the Renaissance pride and pedantry in dealing with them. Everything vital in these cultures is here already coming back to us on sociological and civic grounds; that is to say, with a doubled value and a new interest. That “supremacy of the humanities over the sciences,” which the traditional scholar has too ignorantly vaunted, and too unjustly maintained, thus becomes reconstructed from the foundation of the sciences themselves, and by their cultivators. For it is the highest claim of the physical and biological sciences to be “the preliminary sciences” of the social.

Our historic presentment thus brings us onward through this decline of the Renaissance to the rise of the Industrial city, a process which we see still in progress around us. Industrial problems soon present themselves, not so much

as at first, from the standpoint of the traditional or middle-class economists, nor even that of the contemporary or proletarian ones: we begin neither with problems of production nor exchange, not even with concrete family monographs, excellent though this current advance from the metaphysics of wages-funds or the like to the realities of family-budgets may be: our standpoint must be more general, and therefore sociological; yet at the same time more concrete, and therefore civic. From this civic standpoint, transcending that of either the capitalist or the labour class, we trace this great machine-civilisation, as it rushes past, overpowering mediæval and renaissance traditions and institutions alike. The development of the new or practically new towns, which have come from the spinning-jenny of Lancashire, the steam-engine of Glasgow, the mines and railways of Newcastle, have thus next all to be represented in brief in the Industrial Gallery of our type-museum. Thus, once more, our proposed Civic Museum or Exhibition would acquire and set forth the essential clues to later types of museums with their accumulations; and first, those of engineering, of patent offices, and the like. Only thus can we even begin to reach an adequate recognition of the central factor of our own immediate world and time, "the machine process." Are we dissatisfied with this? I trust so; yet instead of at once proceeding to what may seem to us higher considerations in the opening future, let us for a time go back, and with the historic development of cities before us, seek to make some interpretation of them. Is it not for lack of such historic retrospect and interpretation that most Utopias have been so "Utopian," yet often so homely and commonplace withal?

F.—INTERPRETATION OF CIVIC PAST: APPLICABILITY TOWARDS FUTURE.

This also has been attempted in the preceding paper, yet needs brief recapitulation here. As Comte long ago laid down, societies are not simply of objective and "temporal"

interest, industrial, economic and political, as so many schools of historians have taught, from the most aristocratic to the most democratic. Nor are they essentially of subjective and "spiritual" interest, as the rival historians of religion or of science have in their turns too purely insisted; they are of both kinds of interest taken together. A society has indeed a fourfold life. In this we may indeed first distinguish the "temporal" activities: and here fundamentally those of "the people," in their working everyday life, of occupation, and expenditure; in their homes, their material existence, in their everyday experience and custom also; while to this we must plainly add a survey of the organisation of all this everyday popular life of everyday acts and facts, by their "chiefs" of whatever kind, whether mediæval barons or modern employers. Besides these two, which make up "the temporal power," we have next, and on the other hand, to distinguish the intellectual life also, be this represented by ancient philosophers or by mediæval doctors, by monkish scholars or by modern men of science. According to the particular times and their prevalent type of society, these form a main element of "the spiritual power." This includes the intellectual world proper; that of all thinking individuals, and not merely or mainly the traditionally learned or learning classes, but the whole community also, at its best; that is, in so far as it has a discernible thinking aspect. Finally, to complete this conception of the spiritual power we have to take note of the emotional and the moral forces; fundamentally, therefore, of the women, with whom must be taken the clergy in the widest sense, in their active or "secular" aspect; the press very largely also, indeed at its best. Its obvious and everyday types are thus the mother among her children, the minister busy among his flock, the true teacher among his pupils, rather than the thinker in his cell; while into this moral atmosphere there happily rises at times the whole awakened community, and we hear that voice of the people at its moral and emotional best, to which we owe the otherwise misapplied aphorism—"vox populi, vox Dei."

Such moments are only too rare in history, but we

need them to explain the flowering of cities. This twofold or rather fourfold conception of Comte's I take to be fundamental to all sociology. Hence, uniting the fragmentary elements of this offered by our modern education and church, our press and politics, we must study and present the developments of people and chiefs, of intellectual and moral forces, of which the cities of the world, with all their historic contributions to civilisation, are the resultants or the survivals. Let us represent this in an image, one necessarily crude, yet serviceable—that of the phases of civilisation and their accumulations of heritages and survivals in the modern city, as a growing tree. In this tree, which we might graphically schematise with whorls of fourfold branches, like the stiffly sketched pine-trees of childish drawings, the various social elements—the Temporal, of chiefs and people, the Spiritual, of intellectuals and emotionals—may be represented onwards throughout each period, from primitive or patriarchal ages, from Greek and Roman times, through mediæval or renaissance developments, and thence again to our own industrial times with their mechanical, imperial, financial aspects or phases. This synthetic image brings clearly before us how each successive phase of society has ever grown according to the same fundamental fourfold law, though assuredly in each age with strangely varying foliage, with different ramifications in detail. We are more ready to inquire into and to map out, so far as we can, such beginnings and buddings of a new order as may be discoverable to-day; and thus we may come to see something of Eutopia here, instead of merely dreaming of Utopia nowhere. In such simple graphic ways let us try to set down more clearly what we can discern of the past life of cities, their growing life as well. To illustrate these more clearly, without too much historic detail, let us take one definite period, say the mediæval world. Here then, plain enough, were the chiefs in their castles, the people in their towns and town-houses, the intellectuals in their abbeys, and the emotional forces of the time centering around the cathedral; and thus it is that town-house and castle, cloister and cathedral are all needed to understand

and express the main life of the cities in the mediæval time. Hence the contrasted interpretation of modern Edinburgh and Glasgow in the earliest of these papers ("Sociological Papers," Vol. I., page 108). Passing onwards to the Renaissance, we see the castle becoming a palace, while the abbey with its scriptorium becomes replaced in intellectual functioning by the college with its library; so that in palace and college, the "gentleman" and the "scholar" appear, the types of chiefs and intellectuals characteristic of the Renaissance order at its highest. In this same simple way, one must follow out for these various types each phase of history, and in each city these various types. We ask then: "What of the Chiefs? and what of the People? what of the Intellectuals? and what of the Emotionals, the moral forces?" And we repeat these questions for each particular social time. Who, for instance, especially play these four parts in the present Industrial order with its manufactures? in the Imperial order with its markets? in the Financial order with its companies and trusts? And who are now preparing to take the same parts? and with what needed modifications towards an opening time?

I shall not attempt to answer these questions within the present limits; they must be left to a future paper; but it is surely of value even to raise these great questions in broad and general ways in our civic institute, and to bring its associated studies before these main groups of citizens, these predominant interests and types: — still better, thus to remind the ordinary citizen of the fourfold aspect and responsibilities of his own life, industrial and directive, reflective and executive; and so make him aware of his high calling, to be not only a strenuous worker, or a competent organiser, or a thinking being, or a generous soul, but in some measure all these in one. For so long as we come short in any one of these we are no complete citizens: we are not even complete individuals; for these are the four wings of the spirit. Little wonder then that in each of us poor modern folk the Psyche flutters so feebly, falls so far to this side or that, and that only the thick-shelled utili-

tarian scarabæus, himself commonly but half-sharded, creeps safely along, pushing his humble industrial and domestic burden, great or small. Neither the individual nor the social life was always thus lamed, the ancient, the classic, the mediæval, the later histories tell us, and their cities show; nor need they always so remain. Is it not to this day the best pride of England to recall her golden moment of the Elizabethan Renaissance? Then she had not only, as at all times, among her children the toiler and the mariner, the scholar and the poet, the organiser and the leader, but had these often united in actual achievement—because also in current ideal, emotional, intellectual, and practical in one.

Our general conception of cities, historical and geographical, thus more clearly set forth, interpretation has begun to arise also. That more definite interpretation, sketched in the second of these papers (Vol. II.) here also reappears, and may be briefly recapitulated. We start with the general notion of a town; its situation, its industry and inhabitants; in other words, its environment, function, and population. We next see this simple "Town" developing an experience and tradition, in relation to its locality, its industry, its population, and each of these in appropriate "schools"; and these at different psychologic levels. We distinguished in these a "*lore*" of sense-experience and simple memory;—a "*lear*" of definite craft-tradition; and, in the long run, an even more definite "*law*." The "*lore*" of place grows up into geography and natural science; the "*lear*" of work may develop into technical schools of all sorts; while the folk-association develops custom into established order, whence the Law; hence this, even in its most formalised or fossil states, never loses the trace of its once vital origins. Thus, attached to every town there is some corresponding "school" of thought; and in this it is often easy to disentangle the essential local elements, and the contemporary ones, from those inherited from its own past and that of other cities. Beside this "Town" and "School" there next grows up and away from both, at first in this and that individual mind—or minority-grouping—a new life, with new (*i.e.*, transformed) ideals, new ideas, new

images: and this is the "Cloister" of the Middle Age, it is the Academe of the philosophers, it is the Studio of each of the many historic movements of art. Despite all the differences of the religious mind from the philosophical or the artistic, the Greek thinker, the mediæval schoolman, the modern investigator or the artist, are all of them in some court and cell of this labyrinthine cloister, this world of detached thought; each and all of them have been occupied in elaborating some kind of inner life for themselves apart from the activities of the town, apart from its established and authoritative schools—something at first outside both the practical everyday world and the conventionally learned one, it may be even in sharp opposition to them both. For he who would renew his inward life must ever transcend the law, must "exceed the righteousness of the scribes and pharisees." He who would vitally think must ever criticise both his own experience and the traditional lore of his fellows. He who would produce a work of art must rise above the mere reflection of facts, must abandon their presentment according to convention, and must make a new imagery of his own, and so far as need be even a new technique also.

The further interest of the cloister and its history is that it sooner or later projects its subjective world into reality. In each great civic period, each new phase of civilisation, its three elements have ever risen together; *i.e.*, the moral ideal is revived, the thought-system becomes re-organised, the inward eye and ear re-open. Amid the rapid nutritive growth of the modern town, at best but a larval city, even the more advanced individuals as yet seldom fully escape from the chrysalis, much less spread wings and find scope. The social psychologist, however, may constantly discover them; notably among the "cranks" and the "dreamers," the outcasts, the "unbalanced," and indeed even among the criminals of the conventional order.

Thus, and indeed thus only, there arises the City proper, the renewed ideals of the cloister creating or reforming social organisation (spiritual, temporal, or both) as Polity, the new

ideas creating or transforming Culture, and the new imagery as inevitably expressing itself, in public Art. Thus we reach an idea, I venture to say a definition even, of the City proper: that is the city in its historic and nobler sense; one clearly distinguished, therefore, from the local modern-London sense, that of "The City," as nowadays not the social outcome of all the ideals, but the locality of the money-changers. This strangely deformed, debased, mammonised, and conventionalised conception of London's "City" now gives us the real explanation why it was impossible to use "the City" instead of Westminster for an initial civic outline of this kind.* Whereas in Westminster there has not only centred our unending struggle towards a bettered Polity; but there lie also the memories of what we have most honoured in the life of Culture; and here, therefore, each succeeding generation has sought to express these in Public Art.

G.—CITY AND CITIZEN: THEIR ASSOCIATION FOR BETTER OR WORSE.

Next, we must necessarily ask, how far may we apply these generalised conceptions to the citizen himself? It may at first sight seem a speculation, or at best a merely personal hypothesis, this analysis and fourfold scheme of Town, School, Cloister, and City proper; but its rationality and cogency may be enforced by its parallelism with the process of the individual life. This is, first of all, one of everyday *acts*; we do such and such work in this the everyday town. Next, our ordinary mental experience, our *facts*, must be in direct correspondence to this, or people will say we are dreaming, or worse; by this correspondence, indeed, we prove our sanity, or by its lack we bring it into question. But we, too, are each and all in the cloister; each of us is living with his own *dream*, with his own ideals, his own ideas, and with some kind of appropriate imagery. Furthermore, these dreams of ours to-day are what we will project

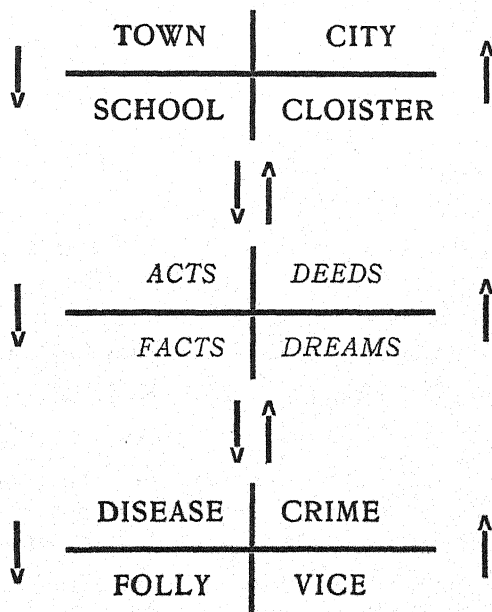
* See V. V. Branford, "Science and Citizenship" in "Science in Public Affairs," Geo. Allen, 1906.

into *deeds* to-morrow. The association of education and of civic life is thus not merely therefore of historic authority or sanctity in the past, nor even of civic idealism in the nearing future, as a project like the present may at least indicate; it is the permanent correlation of individual and group; rightly organised it harmonises "Individuology and Sociology."

An idea more and more becoming familiar to science is that not only bodily and mental defect are associated, as degeneracy and disease with folly and insanity, but that vice is also profoundly correlated with these, and all these again with crime. Hence the modern criminologist, with his studies of "degenerates." Yet those in whose minds this unified conception is growing of the correlation of all these classes of defects are still but few. The need consequently appears of a fuller comparison of notes among such students, not only as at present between the doctor and the alienist, between the teacher and the psychologist, between the moral reformer and the statesman, but among them all; and with a view towards practical co-operation on all these levels. Each of these experts is still too individualist in his studies, and too abstract in his expression of them. We would fain bring all together, as a Hygienic Congress in the largest sense, into our civic museum. That the defects of health come from our deplorably inferior conditions of town-life is the beginning of enlightenment in this matter, but only the beginning. Even the glaring defects of school life are still but beginning to be considered, and this as yet mainly upon the physiological side; on the psychological, their blighting influences are as yet nowhere realised by our too optimistic education-machinists, indeed probably but half-diagnosed by their few severest critics. This correlation of slum and school, of vice and crime, with each other is too complex for treatment within these limits. The point is that it is time to bring together the too detailed and specialised treatments of the past; and further, that here, in such a civic museum, would be the place for this. In this movement of civic science and civic idealism, each of us should and would help more effectively to grapple with the town of disease, the school of folly, the

cloister of vice, the city of crime; for these evils and their ideal opposites are the most essential concepts of civics. On one hand we must face, and simultaneously, all the evil sides of life to which the criminologists and alienists, or Verhaeren or Zola, are but awakening us; on the other, the hopeful sides have far more fully to be elaborated in this museum "cloister" for which I am pleading.

Summarising, then, this whole argument in the graphic way indicated in the preceding paper (Vol. II., page 90), three formulæ appear in similar and corresponding form, as follows:—



The meaning of this diagram—the action and reaction of the individual and the community life, for better and worse—will readily appear; and with this, the reconciliation of many controversies, as that between individual and social responsibility, for instance. For its fuller development, however, a whole room of our Civic Museum is required; and even in our small Edinburgh beginnings, this is already of some service.

H.—THE CIVIC MUSEUM AS CIVIC LABORATORY:
ITS USE TOWARDS CIVIC BETTERMENT.

So far, then, this bare outline of some of the desiderata and some of the possibilities of a civic museum and its studies, with their resultant interpretations of our towns and cities. And since every speculative proposal in the social field must largely be judged by its possible bearing on action, let us not hesitate to say that with this graphic presentment of cities in our museum, from this systematic study of these, new hopes of social betterment appear. With these as worthy incentives to action, our civic life and ambitions may soon transcend the current view of the duties of the conventional mayor and alderman, town council and taxpayers. We are all seeking now to redress the evils of urban life; we are no longer satisfied with the *laissez-faire* economists with their crude or selfish fatalism; we believe that we are masters of our fate, in large measure at least; so we are everywhere seeking to cleanse our towns, and to build our schools; but we need to provide some cloister of civic thought also if we are ever again to have worthy cities. Beside the industrial and commercial activity essential to material prosperity, beside educational activity in the ordinary instructional sense, we now urgently need fuller developments of education in the deeper sense; we need, in short, the study, laboratory, museum, cloister of this scientific yet idealist type; that is, the beginning at least of such a Civic Museum such as I am here outlining and pleading for. Centres of this studious and interpretative kind are needed, and this in a degree far exceeding all that existing cities and their culture-institutes yet possess. Gradually such centres and their grouping of workers and activities would project themselves into the city, bettered at once in organisation, in culture, in health and beauty. From organising a civic museum such as this, it is not far to the planning of the practicable civic Eutopia. For here, in London City, in Westminster, and the rest, there are such and such advantages and such and such defects of place, and work, and folk:

this place dirty, that unhealthy, and each capable of improvement by such and such pieces of work, definable and measurable in ordinary business ways. Yet with this point of view comes an altered theory of economics, a conception of more real business than any of the conventional business operations which merely or mainly seek to *trans-pocket*, as we may conveniently term it, different monetary claims, representing at best our small individual shares in these very defective material realities. We thus learn more fully and clearly than heretofore in any extant economic treatise, to distinguish really productive work from the notations of it. In more technical phrase which comes exactly to the same thing, we begin to analyse the much discussed field of "Economics," and no longer merely cease to confuse "value in use" and "value in exchange," but sharply analyse this would-be science into its elements, as "Catallactics" and "Energetics;" or, more clearly, let us say, as Mammonography and Technodrama. This vital distinction grasped we shall also better understand the school problem; and this with practical bearing upon each and all the tasks of our educational bodies, educational committees, or university senates. From these it is but a short step into the bettered town.

I.—ILLUSTRATIONS IN PRACTICE.

Yet can we not work out more clearly still, unite, present, our policy of civic betterment, of City Development, of Regional Eutopia? And this in some way that can be accepted by all the various types of specialists concerned, yet also understood of the people? How far is agreement possible upon any definite practical policy of concrete improvement?

Once more let me introduce a graphic symbol. In our small beginning of a Civic Museum at Edinburgh, of which I have already spoken, stands first of all the relief model, as the literal geographical centre of our descriptive and his-

torical and economic studies, since the concrete stage of every scene of our city's history. But on the opposite side of the room stands a corresponding synthetic symbol for the life of action and citizenship. What do we need to express and symbolise this? Plainly something materially substantial, something æsthetically attractive, also something deeply identified with the city's life; and this not only economic but social, not only local but also of national and general interest. This is not easy to find in any single monument, yet there are such; and in Edinburgh we have it in the "Mercat Cross," the old emblem of the city, around which, as a matter of fact, the life of Edinburgh has ever centred. Parliament is still summoned, new laws promulgated, even war and peace still proclaimed by the heralds at this surviving Market Cross, just as in the Middle Ages. A reproduction of this serves us, then, as a convenient symbol of the unity of the city in all its manifold activities, material and commercial yet æsthetic, organic yet psychic, economic yet ethical, governmental yet social. From this standpoint we look round our little museum once more, and now with purpose and not merely speculation in our eyes. Again beginning with the open outlook, the painted frieze of sunrise, we seek to associate our small forces and resources into no mere Utopias in the vague, but a regional Eutopia in the definite; and this in small things as well as great. Here then goes on, year by year, the mending of this bit of slum and the next, the helping of this dwelling to a flowerbox or that school to a garden; and sometimes, too, some larger conception or design, some definitely civic contribution towards working out that bettered life of polity, of culture, and of art, in which a great city alone truly lives.

In such ways then we come to see that a Civic Museum and Exhibition thus becomes vitally complete in proportion as it unites to its studies of sociological science the corresponding practical activities; and as it rises from the observation of the town as it is, and even beyond its speculative interpretation, to the more and more definite conception of the city as it may be. Thence the step is easy

to the needful practical initiatives towards making it this. In such ways, then—city by city, town by town, village by village—we need to establish such a definite civic Museum, Observatory, Outlook; and the time is more than ripe for this. My thesis, of the possibility and the use of such literal Outlook Towers, is thus defensible from every point of view, practical or speculative, historic, actual, or prospective. It should therefore appeal alike to town councillor and philanthropist, nay to statistician and to poet; for from the readers of Mr. Booth's Survey to those of Verhaeren or Zola or Charpentier, there is no long distance. It appeals alike to the scholar who reads of the synoptic view of the Aristotelian city of old, or to the dreamer of spiritual or temporal Utopias for the morrow. I press, then, for the actual experimental establishment of such literal synoptic outlooks, since from the outlook towers or heights of any city all that is in this paper may be discovered, and much else besides; so that whoever climbs may read. In the now-a-days so frequent (and undeniably wholesome) reminders of the educational superiorities of Germany, there is too little said of the German love of open-air life and lofty outlooks; yet there is hardly a town in or from which you are not directed to the Aussichtsturm, the literal outlook tower. For one rises not only above his ordinary material position, by climbing into the clear air of Westminster towers, of Hampstead heights, of St. Paul's dome, but above his customary intellectual and moral outlook also. Teufelsdröckh's turret-outlook in "Sartor Resartus" is no mere fantasy, but the record of Carlyle's own student experience in his rarely picturesque and stimulating Edinburgh lodging, and on its adjacent Calton Hill. And it is worth remembering in this connection that from this very hill the first of "panoramas" was also painted about the same time.

J.—EUTOPIA.

The idea of a definite Eutopia—which, as I have had peculiarly long and frequent experience, seems so "utterly

impracticable," and so ridiculous, so "visionary" to those who have only the smallest possible vision of their city, in its personal and individualistic aspect, from their everyday position, their creeping along the surface of the street, as they go about their own affairs—is now seen from such a standpoint to be a quite natural one, directly related to the everyday whole; for not only do general ideas arise naturally from bird's-eye surveys, but definite city plans also. Eutopia can thus be represented in plan, elevation, and perspective, city by city, and with every definiteness, graphic and descriptive.* In architectural drawings, or in symbolic graphics, in statistical figures also, we may put down our civic facts and work out our civic ideals. Thus we reach anew, and in more vivid summary, because in concrete survey also, the civic conceptions which have been outlined for us in the cloister by all adequate thinkers since Aristotle and Plato. For here, in such a two-fold scheme of arrangement as that above indicated, scientific and practical, geographic and geotechnic, hygienic and eugenic, economic and ethic, speculative and educational, imaginative and architectonic, there is place for the Aristotelian recognition and presentment of facts and their interpretations, and for the Platonic recognition and presentment of the world of ideals also; for practical effort toward their realization as well. It is commonly, and so far truly, said that every one is either a Platonist or an Aristotelian, but the sociologist must be both, and especially the civicist, the citizen. For, in a word, we see the synoptic view of the one master of thought, the ideal city of the other, alike reappearing in our present world of social science.

From the many current expressions of this renewing synthesis let me cite a single phrase; one renewing also the idea that the normal is the natural, since the evolutionist may look forward to the future, and not always back to origins merely. "You say life is a struggle after nothing in particular. You are wrong. It is a struggle

* See the writer's "City Development," Edinburgh, 1904.

of the peaceful human soul towards a natural state of life. Men are mostly unconscious of the object of their struggle, but it is always connected in some way with this." Thus appears that harmony of individual and social claims, of citizen and citizenship, already outlined; and above all that sociological conception of the City as, in a very real sense, a natural, *i.e.*, an evolutionary growth, which makes each civic Eutopia a rational forecast, and its realisation, however partial in our time, a worthy and an immediate aim.

The synoptic vision and interpretation of the city, the planning of its realisable ideals, its practicable Eutopia, are thus studies and tasks which no one need be ashamed of confessing; it is time to be bringing them out from our individual cloister-cells into the open. But this implies that we proceed to set up our Civic Observatory, open our Civic Museum or Exhibition, prepare our practical Laboratory and Institute also: in fact, establishing all these as definitely as the nineteenth century did those for the study of the simple processes of nature and of organic life, for the furtherance of experimental sciences and technical industries. Pending this approaching development of civics as pure and applied sociology, let me invite the consideration of this general proposal for Civic Museums, and this both on theoretic and on practical grounds, for Westminster, for London, for Edinburgh, for Manchester, and Liverpool, and Glasgow, nay for smaller cities as well, and, in the long run, from Lerwick and Thurso to Dover, Penzance, and Galway; in short, wherever circumstances admit; that is, wherever the civic student and the social worker begin to come together. Already indeed this co-operation is beginning in American and Canadian cities, in Australia and New Zealand, in Africa, in continental cities also.

To the planners of Exhibitions, the present proposal, albeit as yet too scantily outlined, is peculiarly capable of concrete development, the more since Exhibitions, however "international" and "national," are really above all things Civic, and Inter-civic. In the records of Exhibitions, also, both precedents and suggestions abound.

ABSTRACT OF DISCUSSION.

It was asked if Professor Geddes would give enlightenment as to the necessity of cities, because of the common saying that they are monstrous aggregates, or accretions, or precipitates which had best be disposed of, and Professor Geddes should make it evident, if he regards it as evident, that cities of some sort there must necessarily be. That is a prior question which should not be begged.

What appears to be one of the special values of the proposed Civic Museum is that it would meet the feeling now beginning to manifest itself that cities should not be allowed to grow as they please. London is suffering from the fact that it has grown without any ordered plan, and the statement is true of most other cities. It may be expected in the near future that municipalities will themselves take a higher view of their responsibilities, and will feel that they are accountable for the proper growth of cities, so that instead of being the ugly and insanitary and crowded places that they frequently are, they may be beautiful and healthy. It appears that in this proposed Civic Museum those who are responsible for the government of cities would find the material to guide them in their labours, and perhaps it is a point worth pressing, the value to municipal workers of such a scientific museum as has been so ably described by Professor Geddes.

It was of interest that from start to finish Professor Geddes never lost sight of the fact that his Civic Museum was not to be an end in itself, but merely an instrument in the process of creating what is so largely lacking still—a civic consciousness among citizens; it is an educational institute for the purpose of forming that civic consciousness which dawned upon the Romans and which has been lost in the vastness of modern London, or at any rate is only just beginning to appear in bright glimpses here and there. Professor Geddes would be the first to assume that we have to countrify our city and

that it is to art that one looks chiefly as the inspiration for the future; and it seems that museums, such as have been described, would be very great educational instruments; museums to which one might go with a little child, and let it understand from the beginning the uses and the history of civilisation. A thing which is seen is of more weight educationally than anything imparted by words.

How far is it desirable to evoke and to maintain the civic spirit? What part is the city to play in the national life or in that of the world as a whole? It is necessary to determine what is the value of this grouping termed a city. One must recognise that the civic spirit of the past was in itself the end; it was not comprised in a larger unity, or rather it was merged in a lesser degree than it is to-day. For instance, the distinction between Greek and barbarian was more marked than the distinction between Englishmen and other nationalities, because the concept of humanity as a whole has grown, and is much deeper than in the Grecian times. The question is, how far is it desirable to encourage an interpretation of life from the point of view of the civic, because that may conflict with the wider national or world point of view?

PROFESSOR GEDDES' REPLY.

I confess to begging the question whether cities are necessary and inevitable, since I certainly think so. I view the city as a mingled purgatory, in which past evils and future ideals are both working; and I would extend the conception and treatment of the city which I have been outlining to any integrated community however simple and small, since the germ of the city may be traced from the simplest village community upwards.

The point raised as to the growth of cities is an eminently practical one. That undeniable and enduring struggle for existence with other nations and powers which is usually brought before us in purely military and often hysteric ways, has to be yet more seriously considered; but this will be more and more in terms of the inter-civic struggle which we are as yet scarcely beginning to face; thus here, the citizens of London despite their many advantages are

they have allowed themselves to fall into this present slough in which they are now awaking to find themselves living in what are in so many ways (happily not in all) the most unsatisfactory cities in human annals.

The possible usefulness of the proposed Civic Museum as instructive towards citizenship, has, I think, been on the whole fairly recognised. To the enquiry, do I consider this the best way of developing the civic spirit?—I answer yes, certainly I do; for I do not know of any way more likely to interest people in their city than to put facts, criticisms and projects for improvement before them; they all fight over these, and thus their civic consciousness is awakened, their interest thus increased. It is true that present museums are not used as they should be, but largely because our present educational machinery has given us no adequate means of understanding them. For this purpose alone we need an Index Museum; and this our Civic Museum would actually be, an admirable and practical introduction even to the British Museum and South Kensington. And we should thus aim at and obtain an Index Museum of high value; we should not need any great outlays nor magnitude, for many of its resources, because so far as the existing museums supply these, they are practically departments of our field. I welcome the approval that has been expressed that such a museum should be realised, and it is for city fathers, for private individuals also, to consider how beginnings can be made, if need be, even in a small and modest way. Every schoolmistress who is making a plan of her room and school and street with her class, or who, still better, has taken them out for an excursion has really begun this civic instruction for which I am pleading. The greatest museums have each begun in a boy's pocket, and others are ever thus beginning anew.

The difficulty of bringing all classes together is not insuperable in practice. Thus our little museum in Edinburgh has long found one of its best activities in a Current Events Club. In this a very varied group of people meet for discussion of the actual current news of the preceding week;

APPENDIX

SKETCH PLAN OF A CIVIC MUSEUM FOR LONDON.

FROM MR. HUNTLY CARTER.

To the close observer there is very noticeable just now a strong public curiosity in all forms of municipal government and enterprise, and those domestic, economic and social institutions which embody communitary life. No thinker can perceive this without pondering the question whether such curiosity does not arise from a real desire to understand the city, to become familiar with the municipal way of thinking. To foster this civic consciousness and make it of practical value it would seem necessary so to survey the field of civic thought and action, as to comprehend, direct and control its movements.

I. AIMS.

Any such observational arrangement should be:—

1. COMPREHENSIVE.—It should be a summary of all the known particulars of the structure and composition of the City; an epitome of the whole phenomena of population and environment in their leading aspects—Geographical, Historical, Economic, Cultural; and a visual presentment of these phenomena, in order of their organic and historic evolution; of present time, place, work and people; of future development.

2. LIVING.—It should allow of facts and documents relating to the same civic phenomena being so organised that everything is kept in its proper place, proportions and relations, thus stimulating reflection, creating new lines of research, and adding suggestion and impulse to the growth of special ideas.

3. HANDY.—It should admit of its material being easily accessible to all.

Any such observational arrangement should serve two principal functions:—

1. SEEING.—Properly adapted as a centre of vision, it should form the plan of a much needed civic observatory for the training of the citizen to a proper knowledge and appreciation of his own City and for the guidance of the visitor to its sights and institutions. As such, it should be: (a) a Tower affording a concrete view of the city and its surroundings, and (b) a Municipal Gallery affording a reconstruction in minute detail of the same concrete view of place, work and people by means of models, maps, pictures, diagrams, bibliographies, indices, etc., enabling citizen and visitor alike to obtain a clear idea of the city, its region, its relations to the world both from the point of geography and history.

2. DOING.—Properly adapted as a centre of activity, it should constitute the plan of a much needed civic laboratory, available alike to thinker and worker, in which the whole work—

NOTE.—This sketch-plan is subjoined as a practical suggestion indicating one of the ways in which the museum, for the establishment of which Professor Geddes' paper is a plea, might be actualised. It is the outcome of an extensive investigation of similar institutions, and Mr. Carter has been aided in formulating his plan (of which this is only an outline) by the advice and suggestions of many who have made a special study of museums. He wishes to express his thanks to the British Institute of Social Service for facilities afforded him in carrying on the inquiry.

interest in artistic horticulture, gardening, etc., by offering prizes for the best methods of planting streets with trees, shrubs, etc. Offering a field of original usefulness and inspiration to isolated art students, and thus adding a much needed social sympathy and insight to the artistic life. In short, devoted to the preservation of the city's historic memorials and the development of its beauty.

(f) AN OFFICE FOR SUGGESTIONS, where those interested in town improvements may make suggestions and report to the committees, thus stimulating valuable contributions from the unofficial to the official part of the city.

The aims of the Civic Museum being thus ascertained as the complete study of the city through every avenue of illustration, and the organisation of city facts for the use both of the student and the man of affairs, the plan of the structure itself would be as follows.

II. STRUCTURE.

In order to serve fully these functions of vision and action a building should be designed with a central tower of regional survey, a lecture theatre and congress hall and with rooms devoted to special civic aspects. Thus there would be rooms showing the relation of London to England, to the Empire, to Europe, etc. As the purpose of this building developed, it would doubtless be found necessary to make extensions and to erect and endow district branches, each contributing information, etc., to the central museum.

Supposing, however, the impossibility of the present erection of such a building generously endowed by means of municipal enterprise and enlightened and far-seeing philanthropy, a first attempt at a Museum could be made as follows:

A large, lofty hall would be secured in as central and elevated a position as possible. Its roof, or a parapet surrounding it, equipped with orientational table, etc., would provide the City view. Its interior arranged on the lines of the whole city, would be both an analysis and synthesis of this same view. It would be a visual presentation of the whole phenomena of population and environment, surveyed in the past, criticised in the present, and projected in the future. The ceiling should form a celestial globe, presenting the phenomena of sun, moon, the planets, stars, their system, etc., and around this should be placed a gallery for astronomical maps, charts, instruments and records, and meteorological resources presenting the phenomena of atmosphere,—its constitution, temperature, pressure, distribution, movement, and electrical and optical phenomena, as affecting life in London and as compared with other cities. Below this a frieze giving the geological key, illustrating geological formation, etc., and gallery for resources of geology. Below this, running round the entire room the geographical key, being a visual presentation of the Thames basin, by means of plans, charts, drawings, photographs, etc., with the open districts marked in color, suggesting reclamation of waste and poisonous lands, improvement of soil and climate by afforestation, etc., and having a gallery for models, instruments, etc. Below this a topographical gallery showing London buildings from the earliest to the latest period, from the Londinium hut to the newest steel-framed hotel, the resources here being engravings, prints and pictures, photographs and photographic surveys of old buildings and sections and plans of new, suggesting lines of improvement and preservation of historic buildings. Below this again, a long historic chart in which the varying fortunes of London are shown in broadening and narrowing lines of color, like those in Strauss's Rivers of History, and displaying the relation of Civic history to the main-stream of cultural history. In arranging each section an attempt should be made to effect not only a unity of, but an evolutionary presentation, that is of prehistoric and earliest beginnings and of latest developments, thus passing from the static to the kinetic view. As with the plans of Mr. Kiralfy's scheme to improve the East End of London where we find placed side by side charts of the old, the transitional, and the future conditions. Beneath the historical chart sets of Bureaus, wherein all bibliographical material may be so organised, that even the ordinary individual could have at his disposal the remotest of civic facts, and a guide to all such literature as the city contains. Material thus handled would fall under the three main divisions of (a) Place, (b) Work, (c) People, or in the terms of biology, Environment, Function, Organism.

ORIGIN AND FUNCTION OF RELIGION

theories hitherto given by students, that *the scientific study of religion, so far from being completed has actually only just begun. It follows that humanity throughout its entire history has been ignorant of what religion is, and for the greater part of that history unconscious that it was religious.*

Of the prevalent theories as to the nature of religion two only are of importance. The first of these explains religion as being a belief in the spiritual or supernatural. This may be reckoned the popular view. Dr. Tylor has put it in the scientific form—that religion develops from animism. The second is that religion is the belief in, and the propitiation of, a conscious agent or agents, superior to and controlling nature and man. This is Dr. Frazer's definition. It involves the fact which condemns the other definition, that gods and spirits are frequently, we may say normally, not envisaged as spiritual at all, but as material magnified persons.

As to both definitions, we note that many essentials of religion, such as sacramentalism, and even entire religious systems, can and do exist without any such beliefs. Buddhism was originally an atheistic system; while Positivism can hardly be denied the name of a religion; and many an agnostic claims to be religious. From the psychological point of view, the serious agnostic mind shows a diathesis identical with the religious, when the latter is stripped of its traditional terms.

We may here assume, what becomes a truism as soon as it is stated, that the problem of religion is a psychological problem.

In the following remarks it is proposed to give in brief some results of a new survey of religious phenomena, made in the hope of reaching some invariable factor which may explain the origin and sociological function of religion. This survey starts from the Central Australians, the Islanders of the Torres Straits, and the Melanesians; three cases which present typical forms of religion in the making. They have been studied very recently by excellent observers, who are, however, at a loss—the fact is suggestive—what to call the

systems they have studied, animism or magic, a crude form of "religion," or a system of sacred and secret beliefs and practices, whatever this may mean.

When we examine the general culture of the savage, we find that it is entirely religious. *The savage not only has religion, but apparently has nothing else.*

Is this an extension of religion to various departments of life, or is it an original characteristic? In the first place, it is obvious that in all religions at any stage of culture, the principles commonly regarded as religious belong to several distinct spheres of life and thought. Theism and incarnation are metaphysical ideas; many rites of primitive religion are cases of medical treatment and of agricultural experiment; many sacramental methods are magical; some ceremonies are merely dramatic entertainments, others resemble in form, and probably in origin are not distinct from, Masonic performances; lastly, there is one invariable set of ritual proceedings which seem chiefly intended to solemnise and to regulate the physical crises through which human life must pass. In the next place, if we examine every religious fact, we find that, if we exclude, as inadequate, the definitions discussed above, there is nothing whatever left in the connotation of "religion"; its content is *nil*, its form a name.

We are thus driven to the conclusion that *religion is not a department, not a body of distinctive facts or dogmas or practices, but a certain quality of the nervous organism, a psychic tone, temper, or diathesis*, which may be applied to any subject, but in fact tends, owing to its character and origin, to confine its action to one or two. This conclusion is borne out by psychology, and we must admit when we study primitive religion that it is nothing more or less than primitive psychology. Lastly, our conclusion that there is a religious temper, but not a religious faculty or a religious sphere for its operation, is one which fits the facts.

What then is this "religious" diathesis? What are its adhesions, and what is its origin? There are in the history of primitive and other religions, circumstances in which it is invariably applied. In brief, these are the bio-

logical crises of birth, puberty, marriage, sickness, death and burial. These, and no other circumstances (except such as are causally connected), are productive, in any constant degree, of religious manifestations; and here, and nowhere else, do these manifestations appear in a concentrated form.

It is unnecessary to quote instances of such well-known phenomena of primitive life as the "religious" ceremonial which attends these crises. We ought, however, to note that in the highest civilisation the same essential connection between biological crises and religious emotion and ceremonial also holds good. The religion of the civilised man is, no less than that of the savage, concerned most intimately with elemental facts and interests such as life and death. It consecrates birth, adolescence, and marriage, it assists the sick, and surrounds the dead with its halo. Whenever, again, a man is confronted with what we call a matter of life and death, his psychic state is identical with the religious; while in the systematised operation of definite creeds the main object of devotion, meditation and prayer is—life, in another world indeed, but still it is life. The origin of the religious impulse, then, is apparently to be sought in the beginnings of the psychic functions; the problem becomes biological.

We may take it then, that the sphere of religion is the elemental part of life, its biological aspect, and (if we may anticipate somewhat and mention a function of religion before quite reaching its origin) *the religious emotion consecrates such elemental concerns—its objective, in one word, is Life.*

Fixing now our attention on these two categories, consecration and life, we find, in the first place, that they explain some remarkable features of primitive religion, which are usually relegated to the sphere of magic, their religious essence being ignored. A large proportion of that early ceremonialism which is dismissed as magic is really, when we come to consider it, the process of *making a thing sacred*. Magic is the means, but religion is the end. The Catholic Mass with its Consecration of the Host is a modern instance. Similarly we may affirm that the Central Australian cere-

monial, to which Messrs. Spencer and Gillen refuse the name of religion, is a huge system of consecration. Our authorities themselves speak of it by the significant phrase, "sacred and secret proceedings," and this is precisely what the first outward expression of religion is; its inner expression being the seriousness which prompts both secrecy and consecration. A long list of fetishistic phenomena are at once explained from this view of the facts.

In the second place, there is a remarkable conception constantly appearing in the religious physics of primitive peoples, and variously explained as the principle of magic, or of taboo, or of the soul, which seems to be adequately accounted for in its essence and manifestations by regarding it as the *substance of life*. Thus the *mana* of the Melanesians is the "energy" which is the basis of their magic and religion alike; it is conceived of as a material force, transmissible, though generally invisible. Men of great power and vitality possess it in greater abundance, and will generously impart of it, to a boy, for instance, by laying their hands upon him. It has an intimate connection with human flesh and blood. Similar is the *orenda* of the North American Indians, and the sacred power which inheres in the magico-religious apparatus of the Torres Islanders. A good instance of the conception is to be found in Spencer and Gillen's Central Australians. The magical power which inheres in the sacred *churinga*, and gives them their power, is called by our authorities the result of a *rapport* between these bullroarers and the "spirit parts" of ancestors. The owners are constantly rubbing the *churinga* to extract their virtue; dust scraped from them is given to the sick, just as blood is given, or a strengthening draught; and they acquire additional vital force from every hand through which they pass.

In fine, primitive religion may be considered as being based on a conception of life, a vitalistic philosophy, whether the system be described as animism, or magic, or taboo, or sacred and secret proceedings. Nor does religion ever lose sight of this foundation, as a comparison of Christianity,

with its cry for life and its "grace" (so curiously analogous to *mana*), will abundantly show.

The origin of this conception may safely be ascribed to the vital instinct, the will to live, in its first reactions upon the nervous organism. Throughout primitive custom it is the fundamental processes of organic life that are made the subject first of secrecy and then of consecration. As soon as any of these processes, whether at a crisis or in normal circumstances, produces a reflex in subconsciousness, we have the beginnings of the religious impulse.

This heightened tone of consciousness, this seriousness of "conviction," which we know as the religious impulse, has for its first sociological function *the affirmation and consecration of life*. By this is secured the integrity of the vital forces, and, secondarily, of elemental conditions, such as the family.

In the next place, there can be no doubt that religion, intensifying personality as it does, is primarily individualistic. Starbuck shows that of the motives present at conversion the altruistic average only 5 per cent. Christianity itself rests on a firm basis of individualism. To speak of the intense altruism of the early Christians, or of the flood of altruism let loose by Puritanism and the Reformation, is not only to misread history, but to misunderstand the nature of religion. Of course, it remains true that religion, with the increase of vitality which its presence implies, will, especially in the mature, lead to an extension of individuality, which is the only sound form of altruistic sentiment.

In the next place, it is no paradox to say that religion keeps man in harmony with earth. It prevents false idealism; its tendency is to a sort of sacred realist monism, without falling into either extreme of materialism or subjective idealism. Herbert Spencer suggested that the basis of religion and the ultimate fact behind both religion and science, at which science ends and religion begins, is the recognition that the existence of the universe is an unknowable mystery. It would be more correct to speak of *the recognition of the reality of the universe*.

Religious emotion and theological doctrine, it is interesting to observe, trace a curve which begins from and ends with the physical; but the first and last biological result of religion is *to raise human nature to a higher power*. As Starbuck has noted in his study of conversion, a persistent element in religion is the reaching out after a fuller life. The lower and higher notes, we might say, form a chord; religion sounds the octave of existence. The Maori gentleman (to give instances of this elevating characteristic of religion) is permanently sacred—a rough example this, which, however, will yield to analysis; the Brahman makes himself divine by performing elevatory ceremonies, as they are significantly termed. To multiply examples of the results of possessing *mana*, or “grace,” or the like, would be superfluous. There is a heightened or deepened tone about the religious consciousness. To the religious mind every meal is a Eucharist; every marriage a sacred union; every home has its holy family; every mother is a Madonna; every babe a son of God.

Finally, to return to our starting point, it is possible, I submit, to divide the history of the human mind into two great periods: in the first we find the *unconscious* development and exploitation of religion; in the second, the *conscious knowledge and scientific application* of it. The commencement of this second epoch may perhaps be coincident with the “religious crisis” of to-day.

[For a fuller treatment of the subject, see the author's “The Tree of Life,” 1905.]

DISCUSSION

MR. SHAND SAID:

He had heard Mr. Crawley's paper with very great interest, and his appreciation of the abstract had been increased by the detailed evidence offered in support of it. That Mr. Crawley should have found the common element of religion to lie in the instinct of self-preservation or "the principle of life" or egoism, ought not to surprise or shock anyone, because the common element of a class was never the higher characteristic of certain of its varieties, and while he felt a strong agreement with what Mr. Crawley said about the egoism of the religious feeling in general, it was also true that in certain of its higher varieties it rose to a much higher plane. That was sufficiently obvious. In fact, to go back to this instinct of self-preservation, it was only one of two great instincts inherited by the race, and the other was the instinct of race-preservation. He thought that, while it was profoundly true that all religions found a base in the first instinct, the higher religions were connected with the second instinct, and thence arose their altruistic side. But it was not so much on that question that he wished to speak at present. Mr. Crawley had rightly defined religion as a psychical state, and he had told them that it was a function of the principle of life, this instinct of self-preservation "in expansion" to consecrate the elemental facts of life. Now it was here that certain other psychological factors required to be noticed. The mere instinct of self-preservation did not by itself consecrate anything. As Mr. Crawley said, it was the origin of everything. It pervaded every function of the body, it pervaded the appetites, it pervaded the primary emotions of offence and defence. It was not so much, as was commonly remarked, a single instinct, as a great system of instincts directed to the preservation of life. Now, religion being on a higher plane than mere instinct, which was defined as complex reflex action, or a system of reflexes,—religion must involve something more than instinct, though this something more might be an outgrowth from instinct. What it involved was

emotion growing out of the instinct of self-preservation. This instinct was at the root of two of the earliest emotions, anger and fear. And fear, which was the earliest, had, as they were all inclined to believe, a very strong influence in the development of at least the earlier religions. The mysteries of nature which the savage could not understand aroused fear, and fear did not always presuppose the belief in its object, but sometimes compelled a belief in it to a very large extent. He supposed that however much some people might ridicule the belief in ghosts, if they were susceptible to the peculiar fear of them, such persons in a haunted room at night would be liable to part company with their theoretical disbelief, and would find growing in its stead a suspicion of, if not a belief in their existence produced by the emotion of fear. Fear must have a great deal to do then with both the feeling and belief of the earliest forms of religion, but, as Mr. Crawley said, the psychological state, which was religion, consecrated the elemental facts of life, and fear by itself consecrated nothing. But while sudden danger aroused fear, the contemplation of the great powers of nature, and human life and death as related to them, had a tendency to arouse in union with it the emotions of awe and wonder. Hence the sacredness and mystery which religious emotion attached to its object. And other emotions also contributed to this result, at least in the higher religions, as admiration, reverence, and the sentiment of love. There was also another primary emotion which had a very important influence in certain situations of life, and that was sorrow. Leibnitz said "*La douleur est comme le pont naturel qui relie l'âme à Dieu.*" And there they touched on the common nature of fear and sorrow. They were both emotions of weakness. Now, the religious state was emphatically a belief in a power. If, as Mr. Crawley said, they could not claim that it was a belief in a spiritual power or in material, though conscious beings, superior to nature, they could at least say that it was a belief in a power over life, of a giver and destroyer of life, as a supreme mystery. That did not involve the assertion that that belief must have as its object the conception of a personal being. Now, both fear and sorrow were emotions of weakness which made them feel in the presence of something greater than themselves, and also the higher emotions or sentiments of reverence and love, though not depressing and asthenic like sorrow or fear, had also this same attitude; because the love which was connected with religion was not the protective love but the up-looking love. So that all of them, whether belonging to the egoistic side of their nature, or to the other side, made them impressively conscious of a power above themselves, made them feel it to be mysterious and sacred, and went a long way to compel belief in its reality. While the more elementary emotions of fear and awe were connected with the instincts of self-preservation, and were therefore capable of developing

only into egoistic forms of religion, reverence and up-looking love were altruistic emotions, and might be connected with the instinct of race-preservation. So that from that point of view they might come to see that in the higher developments of religion, they had not only an altruistic instinct at the base, but also later developed emotions to support an altruistic ideal.

MR. SWINNY SAID :

There was a great deal in the lecture he very much agreed with, as for instance the rejection of the two definitions of religion mentioned by Mr. Crawley, which as they obviously did not cover all religions could not be accepted. He should also be willing to accept his view that religion was rather a state than a doctrine. But, at the same time, as religion had passed through various stages in its manifestations and its form, there must have been some reason for the passage from one state to another, and although the lecturer had dealt with the origin of religion, and had shown it was something permanent and could not disappear, he had not dealt with this question of change of form or expression which was seen in such a marked way in the history of the human race. Something, therefore, was required to account for this, and that must be the growing knowledge of man and his environment, and the different explanations which he then put forward. This affected the form in which religion expressed itself. The lecturer said that the elementary instinct of life was the origin and centre of religion, and he also said, and very truly of course, that that was the only subject which interested the early and primitive man; necessarily, therefore, his religion would deal with that only. With the increase of civilisation new instincts become strong, and there being gradually evolved the more complex of the selfish instincts, and then the altruistic, they also must come under the purview of religion; so that though religion dealt greatly with these early instincts of life which had been so long of interest to men, it would still necessarily extend itself as new instincts became prominent to those instincts also. While he was willing to accept the lecturer's view that religion began with this instinct, he could not accept his view that it ended with it. Also when he said that the belief in immortality was a necessary part of religion, that seemed to be throwing aside his original definition that religion was a state and not a doctrine. And it suffered from the same difficulty as those two other definitions which he had already rejected, namely that it would not fit all religions. If indeed he says the hope of life is inherent in all religions, and that beginning with primitive religion, when the nutritive instinct only was fully developed and was the centre

of life and was believed to continue with the existence of the body after death, so it developed through a belief in the soul to a belief in the continued life of the race and not of the individual, then indeed in that extended form, the definition might suit all religions. So he considered that religion, as the lecturer put it, would continue with an ever increasing sphere, and would take in not only the earliest instincts of nutrition but altruistic instincts also, and as they grew stronger religion would get more concerned with them.

REV. FRANCIS AVELING, D.D., SAID:

In contributing to the discussion of the paper read, I would say, first of all, that I see no reason to disagree in the main with the thesis proposed as to the origin of natural religion, and I am inclined, still further, to agree with the able comment which Mr. Shand has made. But there is another aspect of religion worthy of notice; and, in touching upon it, I must ask you to bear with me if I speak as an individual, attempting to place myself outside my own profession of the topic involved as well as outside the technical lines naturally, and perhaps for the purpose in view necessarily, laid down by the particular historico-scientific nature of the paper we have just heard. I say, as an individual placing myself outside my own profession; for were I to speak as a Catholic Priest, though I might state the position of the Church in this matter, I could hope to add little to that with which you are already familiar. And I say, outside the technical lines of such a scientific treatment as we have heard to-night, to escape the possible trammels of any determined system. Of course, if an inquiry is to be made, some method must be employed; and we have no reason to quarrel with the method because it has its natural limitations. Thus, to attempt to take a comprehensive, if inadequate, view from without may prove of some indirect usefulness. If I speak as a Catholic, reiterating Catholic teaching, I shall seem to you to beg the entire question at issue, by asserting, at anyrate for one particular form of religion, a divine and, in the last resort, a non-analysible origin. If, on the other hand, I speak as a scientist dealing with a question that can be answered on purely scientific lines, I am shutting off at the outset any possibility of such a divine origin. Both theologian and scientist are naturally biassed. I desire to be as unbiassed as is possible.

Having broadly stated the position I desire to take in this discussion, I go on to differentiate between (1) *Religion* and (2) *Theology*. Obviously the religious sentiment may be the outcome of a theology either natural or, if such is possible, supernatural. I should be strongly disposed to doubt the possibility of any religious sentiment that is not

the effect of some sort of a knowledge, or supposed knowledge, of that real or fictitious object towards which it is directed. Consequently, I should be disposed to the opinion that *the will to live* was the effect rather than the cause; religion itself—in the lecturer's words, *the psychic tone*—rather than a principle or system, natural or supernatural, which brings it into play. That such a view could be extended to include religion as attending all the crises of life in a particular manner is plain; indeed it would seem not only to be a natural, but almost a necessary outcome, of a theological conviction of any kind.

But, to pass on rapidly. If I am right in supposing that there can be no religion without a theology of some form or other lying behind it, which would seem, in the main, not to conflict with the definitions given; and if, at the same time "religion is a permanent growth from human nature"; we have at once a permanent and natural theology—or, to put the case better, natural theologies—permanently lying behind it. Of these, many do not seem capable of bearing the scrutiny of reason. Some are in accord or, at least, not in contradiction to the sure findings of science or sound rulings of philosophy. But upon all, some sort of a religious sentiment is based. Taking them *en masse* all these theologies include dogma relating of God and the human soul. This dogma *may* be crude, misleading, even erroneous; but it is sufficient to provide a possible theoretical basis for a superimposed claim of dogmatic revelation. Now that claim is made. It has been made for a very considerable period of time, and over an extraordinarily catholic area. It is a fact, and a striking fact, of which any scientific survey of religion, its origin and function, must take account. Something of its universality may be accounted for by borrowings; but even so its general acceptance and its profession remains. If we look upon the question from the philosophical view point, we may not see anything to prove its worth; but neither can we discover anything to invalidate the possibility of such a claim being rationally made. Consequently, we must include it among the particular constant factors of both theology and religion. How can this fact be explained on rational grounds? Many answers may, doubtless many have been, suggested. It may be the tendency of human nature to refer convictions to doubtful origins in order to increase their cogency. But, must it be presupposed that the origin is doubtful? We do not, certainly, refer all our convictions to origins of this nature; and I should be inclined again to infer that, "since religion is a permanent growth from human nature," not only natural religion and theology, so called, but also the more abstruse reference of what is claimed to be supernatural religion and theology, is to be ascribed to a natural tendency of the intellect, holding its theological facts or doctrines in some peculiar and distinctive way and for a peculiar and

distinctive reason. And I advance one line of thought in support of this supposition. Probably it is not the strongest in itself or the most persuasive. Text books of theology advance other considerations to show the connection between the two, and to demonstrate the possibility of revelation. They point to factors showing a common origin, a consistency and so on. But, by eschewing my profession of faith for the moment and putting myself outside my subject, I am unable to employ such methods. In any case, the present consideration appears to offer a fruitful possibility. There are certain teachings of so-called revealed theology, at first sight apparently so incongruous and contrary to common-sense as to deserve no serious criticism. Others seem to be trivial and not *ad rem*. While others again, and these more particularly belonging to the body of moral dogmas, look as if they were calculated to work ruin to the individual and destruction to society. I cite these three classes as sufficient for my purpose. Instances of the three types of dogma will readily occur.

Obviously I am taking for examination that most rigid system of theology which makes the claim of being, not a guiding inspiration within the soul alone, but, in the most explicit manner, a revelation from without. And (1) I would draw your attention to the fact that none of such dogmas does conflict with exact science. As a supreme test consider the dogma of transubstantiation in the Roman Catholic Church. Until that system of philosophy which is advanced in the name of exact science changes its concepts to fit those in which the dogma is expressed, or until theology alters her terminology, there can be no real comparison even, let alone a contradiction. The word "substance" on the tongue of a theologian means neither matter, nor mass, nor atom, nor any of those terms which science employs. The action expressed by the prefix "trans" cannot be included in any equation in terms of force, momentum, or direction. The very concepts are disparate. This being so (2) a second observation is pertinent. A goodly number of dogmas, claiming divine origin, are such that it is exceedingly difficult to account for any one of them, to say nothing of a whole system, being the product of natural thought, investigation or creation. Yet take away one and, as a system, theology collapses. It is no longer coherent or systematic. How could it grow, as an accretion, to such orderly solidity? How can those extremely speculative and transcendental dogmas, compacted into one whole, which apparently came into being together, at one time, be the result of such a primitive factor as the vital feeling or the will to life? And especially, how can this be the case if my hypothesis be not a *hysteron-proteron*?

(3) But there remains a further datum to be taken into account. These highly speculative dogmas, these apparently trivial doctrines, and these extraordinary moral precepts and "counsels of perfection" have

not, as a fact, been prejudicial to civilisation and social development in the past, much as we might be led to expect they would have been. They have had, and still have, side by side with the religious and ethical value, a distinct social and socially utilitarian effect. Every part of the sum total of what is known as revealed religion, in its strictest sense, has its necessary place and value in the structure. No part, without injury to the whole, can be omitted or neglected. And, despite the faults of its professors, despite the warped and distorted uses to which it has sometimes been put, it has always encouraged and urged and taught that one duty of the human soul—love—the means and the end of human destiny, which finds, in its scheme, its most practical application here in the universal brotherhood of man and its final issue hereafter in perfect union with the Creator.

I hope I have not preached a sermon. That has been farthest from my intention. But in putting these considerations before you as part of the discussion, I have attempted to make allowance for a possible origin of one form of religion which a purely scientific investigation must almost of necessity, and because of the very conditions of its procedure, omit. I do not say that science can pronounce favourably upon this view. But, on the other hand, I do not think that it has any right to exclude it. I am painfully conscious of the fact that all so-called Christians do not agree on these matters; and therefore I have naturally, while always attempting to take an individual stand outside my own subject, looked to the dogmatic theology of my own Church, as that which I know best, and therefore presumably as that in speaking of which I am the most likely to interest or be of service to you.

MR. N. W. THOMAS SAID :

I approach the subject from the anthropological side; but as regards the psychology of the question I may say that I find myself in agreement with Mr. Crawley's doctrine as expounded by Mr. Shand; the only point on which I feel some doubt is, to what extent Mr. Shand has really expounded Mr. Crawley's views. The emotion of which Mr. Crawley spoke seems to me to differ from the religious emotion among some of the peoples to whom he refers. I should like to have further definition of his view as to the objects of religious emotion, both among ourselves and among peoples in lower stages of culture.

I find myself at variance with Mr. Crawley on many anthropological points. In the first place it seems to me questionable how far we can say that the culture of the savage is entirely religious; except in the sense that it is almost entirely concerned with the production and maintenance of life; the mental attitude of the Australian native

on the hunting expedition has no resemblance, so far as I can see, to his frame of mind during initiation ceremonies; if that is so, there is no underlying unity in the psychological states which can justify Mr. Crawley in classing them together as religious. Again, the attitude towards the woman in childbirth or towards the corpse seems to me to resemble far more the emotions with which we regard infectious diseases than any emotion we are accustomed to regard as religious; the practices of seclusion and avoidance have indeed, as their object, broadly speaking, the preservation of life; but so too have our precautions against the spread of infectious diseases. But Mr. Crawley will hardly include the latter among religious observances. Turning now to concrete examples, I think Mr. Crawley has been unfortunate in his choice of typical peoples. The Arunta, in the opinion of the great majority of competent judges, are not primitive; I myself have recently argued that the Arunta of Spencer and Gillen are not primitive, and I based my argument on specifically religious grounds, showing that there is a sharp cleavage within the Arunta nation itself, which can only be explained on the supposition that the Arunta of Spencer and Gillen have discarded their former religion in favour of an ingenious philosophy. So too with the Torres Straits Islanders: so far from seeing in them a people whose religion is in the making, I regard them as one whose religion has vanished under European influence; they have been under the missionary regime for some thirty years. In neither of these cases do I see any justification for Mr. Crawley's view that we have to do with religion in the making; it is rather decadent religion. Leaving that fact out of account, it seems to me erroneous to speak of religion as being in the making anywhere at the present time; it must not be forgotten that peoples on lower planes of culture have as long a course of evolution behind them as ourselves. On any view of the nature of religion it seems to me difficult to maintain that they are just developing the religious emotion, but this is more especially the case if we accept Mr. Crawley's definition and connect the preservation of life or the vital feeling with religion, as he does; it can hardly be argued that religion in this sense is only emerging among the Australians. Quite apart from these considerations, however, there arises the question of the general reliability of anthropological evidence in matters which cannot be seen with the eyes. The experiences of Colonel Ellis in West Africa are very instructive in this respect; it was not until he had been there for years that he discovered the erroneous character of many views on negro religion, which are still current amongst us. In how many cases can we fall back, for our facts as to primitive religion, on the evidence of a trained psychologist conversant with the language and customs of the people with whom he had to deal? As a rule we have to rely on missionaries. Dr. Codrington's work among the Melanesians is

admirable, but as a missionary he was apt to look at things from a missionary point of view; not only so, but his work as a missionary had as its purpose the overthrowing of savage ideas and the substitution of civilised ones. But in taking Dr. Codrington as an example I am selecting an altogether exceptional observer; the average enquirer into these questions is less adequately equipped: in the case of Africa we still find the statements of Bosman and other old travellers, mere sojourners in the land, quoted for the facts of negro religion. Unless the scientific study of religion is a far less complicated matter than I am accustomed to suppose, it is time that students came to rely less on casual observers; the triangulation of a geographical area demands skilled observation. Why should we be content in the field of religion with the work of amateurs? Until we have more expert evidence it seems to me premature to generalise on savage religion, and in particular on the religion of the Australians, with whom I am most familiar.

MR. HENRY ELLIS SAID:

I have asked permission to say a word or two, because it seems to me there is an omission in our proceedings. What I have to say will, no doubt, be very imperfectly expressed; but I think it is something that ought to be said. It has struck me as rather curious that, at a meeting of a society calling itself the Sociological Society, no reference should be made to the views which have been expressed on this supreme subject by the founder of Sociology, Auguste Comte.

With regard to the *origin* of religion, I am not quite sure that I attach so much importance to that subject as the lecturer has done, or, at all events, to that branch of it with which he has more particularly dealt. I confess that I do not feel very much interest in the religious doctrines or practices of the aborigines of Australia, or other races still remaining in the primitive stages of civilisation. From the anthropological point of view, they may have their value; but, speaking sociologically, the lessons we can learn from them are of a very elementary character; and what concerns me specially is the course of evolution which religion has followed among the more advanced races of mankind. It is from the study of that, I believe, that we shall derive the most valuable sociological instruction.

To Auguste Comte the history of civilisation was the history of religion; and, in his great work, the "Positive Polity," he has accordingly given a most careful, exhaustive, and profound analysis of every form of religious belief, from the earliest to the most recent ages. If any of those present wish to pursue this subject, and to learn what his teaching was, I recommend to them the study of that work.

With regard to the *nature* of religion, it's very widely assumed—and has been assumed here this evening, though not by all the speakers—that religion is necessarily synonymous with theology, with some form of belief in God. But, in the presence of three or four hundreds of millions of Buddhists in the East, who apparently have no belief either in God, or in the immortality of the soul, that thesis is rather difficult to sustain. The same argument applies to Humanity generally in its Fetichist stage. The primitive Fetichist cannot be said to have any belief in God in the modern acceptance of the term. In that sense, indeed, God is a comparatively late creation of the race. And even among theological believers, the adherents of each creed are reluctant to accept as a religion any other belief than their own. The early Christians were charged by the Roman Polytheists with being atheists; the followers of Mahomet call the modern Christians infidels; and probably all forms of purely theistic belief would agree in refusing to regard Fetichism as a religion. To reconcile all these diversities, and ascertain what, at bottom, constitutes “religion,” it is necessary to endeavour to find out whether all the various forms of belief possess any common element which justifies the application to them of this term. Here the inquiry as to the nature of the *functions* of religion will assist us.

The view taken by the lecturer seemed to leave us in a certain amount of obscurity, and there appeared to me to be a want of precision in his definition. Now Comte, approaching this subject in accordance with his classification of the sciences, founded sociology upon the preceding science of biology, and, in his teaching as to the nature of religion, based himself on the superior part of the science of biology, that is, on the part of it which deals with the functions of the brain. There he came on a most important truth that lies at the bottom of the whole subject. Gall was the first who constructed a definite theory of the various functions of the brain; and Comte, starting, in the first instance, from Gall's theory, followed on somewhat similar lines. But Gall, writing before the foundation of sociology, and consequently without the aid which sociological suggestion would have afforded him, went astray on certain points. Comte, as the result of his own investigations, arrived at certain modifications of Gall's theory, and drew up an independent scale of functions of the brain, in which he showed that human nature was not single but dual; and that fact lies at the root of all religion. His scale exhibits a certain number of cerebral functions dealing with the purely selfish side of man's nature, and others dealing with the unselfish side. The existence of that dualism has been a matter of common human experience, although no one before Comte has ever furnished a scientific explanation of it. It was described many centuries ago by St. Paul in his doctrine of nature

and grace. In his Epistle to the Romans he pathetically bewailed the eternal conflict in his soul between desire and duty. "For the good that I would, I do not," he says; "but the evil that I would not, that I do." He found a solution of the problem in the doctrine of what he called "grace." When he was enabled to do the things he felt that he ought to do, it was not by his own imperfect nature, but by the grace of God.

Discarding any theological hypothesis, Comte states the problem in somewhat different terms. "The fundamental problem of human life," he says, "is the subordination of egoism to altruism"—of selfishness to unselfishness. He admits that the solution can never be anything but relative. The entire eradication of self is impossible, and it may be doubted whether it is even desirable, as the motives for much of man's activity, whereby the race is benefited, would then disappear. What is wanted is to cultivate the higher qualities, the unselfish side of man's nature, so that, as time goes on, it may acquire increased influence, and man's brain be modified accordingly. *That* is the function of religion—*régler et rallier*, says Comte—to discipline and to combine, to subordinate, not to suppress, man's selfish faculties, and so to enable him to combine ever more and more heartily with his fellows in the common duty of rendering the earth a more desirable dwelling-place for the generations to come. This is the one task which every religion has—implicitly at all events—set before itself; the one element which all religions have in common. And the more perfectly they have fulfilled the task, the more they have deserved the name of religion. Our friend, Father Aveling, if I understand him correctly, cannot conceive of a religion without a God; but I suggest to him that any system of belief, whether theological or not, which performs this function, may properly be called by that name.

THE CHAIRMAN SAID :

That Mr. Crawley would defer his reply until the criticisms of the several speakers were in print, and until he had the advantage of reading the contributions of the eminent foreign experts which had been summarised by Dr. Slaughter; contributions which imported international features into the discussion.

He (the Chairman) felt that at so late an hour it would be an infliction on the audience were he to address them at any length, but he might briefly indicate what line he would have taken.

Too much stress had been laid, he thought, upon the functions of religion, and too little upon its origin, although origins were of

secondary importance, as neither affecting the validity, nor the significance, of what springs from them. Mr. Crawley, in citing the definitions of Dr. Frazer and Dr. Tylor, added one of his own, which appealed to him (the Chairman) as falling into line with his views. Mr. Crawley spoke of religion as a psychic tone, and of the problems attached to it as psychical. If psychical evolution be proven, the old distinction between a religious and a non-religious stage in man's development no longer holds good, because at no period of that development can we say: here man stands apart and different in kind from all lower life-forms. To say this is to commit the heresy of denying the doctrine of unity and continuity which is the keynote of evolution. Hobbes, whose shrewd observations, scattered through his "Leviathan," have not had the recognition they merit, says that "the fear of the invisible is the seed of religion." And if the behaviour of animals in presence of phenomena unfamiliar to them be compared with the behaviour of man at a low range of intelligence, no difference can be noted. Both are the victims of terror of a thing in the degree to which its nature is unknown to them. Hence, what we may lawfully call religion is potential in the animal; what is implicit in it, is explicit in the man. He and the animal are at one in vague attribution of power, mainly harmful in working, in all things; he alone, in virtue of his brain development, passes from the conception of power to that of persons or spirits in every object, whether living, or not living, a conception embodied under the term Animism. Later on, he conceives a distinction between the thing moved and the something that moves it; hence arises the notion of a seen and unseen. And in the unseen lie the germs of the Supernatural, whence spring the luxuriant crop of spiritual beings, from innumerable minor spirits to godlings and the great gods of the higher religions. So the whole thing hangs together as a psychological chain from the lowest animal up to the highest man, and what chiefly interested him was this connection of the higher animals and the lower phases of humanity in so far as that represented a continuous chain of what they might venture to call spiritual life. Mr. Crawley's paper was luminous to a degree. It was interesting on the anthropological side, and if the functional side had been a little too much dwelt upon, he was personally indebted to Mr. Crawley for the paper, and was sure that they would accord Mr. Crawley a hearty vote of thanks for his presence there that night and for the treat which he had given them.

WRITTEN COMMUNICATIONS

FROM COMTE GOBLET D'ALVIELLA.

Mr. Crawley begins with the assertion of Frazer that it is impossible to frame a definition of religion which would satisfy everyone. This is evident, if by religion is meant religious truth. It is here that one can well say: *Tot sententiæ quot homines*, or rather *quot ecclesiæ*. But why should it be impossible to define religion any more than other terms connected with the different departments of sociology, provided one takes it objectively, as a fact, irrespective of the variations of its forms, and even of the validity of its contents?

Of all the conflicting definitions, Mr. Crawley retains two: (1) That religion is the belief in the "spiritual" or in the "supernatural." (2) That it is "a belief in and a propitiation of a conscious agent or agents superior to man and controlling nature." This classification could be reduced still further, as the second definition includes the first, while the first does not include the second. Besides, the first brings us to another and still more vexed question: What is spirit as opposed to matter? Finally, this last distinction is quite unknown to the primitive mind. Therefore, we should content ourselves with the second definition, which implies: (1) The conception of superior agents or agent, whether spiritual or not; (2) The conviction that this agent or agency controls nature, man included; (3) The belief in the possibility of propitiating this power by certain appliances.

To this explanation of religion it can be objected: Firstly, that primitive men do not try to propitiate so much as to control the superior powers. Accordingly, magic ought to be included in a definition of religion. Secondly, the admission of superior forces which control nature and man lies at the basis of science as well as of religion. How then can we distinguish the case in which these forces are an object of religious belief? I should answer: Only when they act in a way that somewhat escapes man's comprehension, and yet are supposed to be manageable by him. Mystery, as Professors Pfleiderer and Albert Réville have well shown, is a necessary element in the religious feeling, whether

we have to deal with the vulgar fetish of a low savage or with the exalted unknowable of a Plotinus and a Herbert Spencer. Therefore, I cannot see what objections could be raised to a general definition of religion as "a belief in, and a propitiation or a *control* of a conscious and mysterious agent or agents superior to man and controlling nature." I myself, long ago, proposed the following definition, which covers the same ground: The way man realises his relations with the superior and mysterious power upon which he believes himself to depend. Where are the "essentials of religion left out," and where the religious systems "that can and do exist without such beliefs?"

Mr. Crawley starts with two assumptions: (1) That all primitive ritual, as all primitive life, is confined to elemental physical concerns; (2) That the characteristic of the Australian ritual which he believes to be at the bottom of the scale, is sacredness rather than magic; namely, that it implies the investing of some objects or beings with an "intensified life," conceived as the Polynesian *mana*. Of these two assumptions, I quite agree with the first and I am not ready to dispute the second. It is enough for me that their author accepts the *mana* as "a mysterious energy which is behind magic and religion."

Wherever man tries to conquer or to propitiate this mysterious energy, Mr. Crawley sees "the primary instinct of human nature," the "will to live," or rather, if I understand rightly, the will to intensify his own life by an adaptation of the life-giving principle. He goes on to say that religion is born when this vital aspiration, which is at the root of all human activity, is expanded and heightened to an exceptional degree; when it rises, so to speak, to a new plane—the domain of *sacredness*. Is this anything else than the old theory that religion springs from man's impotence to satisfy the cravings of his soul, whether they concern the primary objects of life or the highest ideals of thirst for justice and truth? The problem is to know why men expected their gods to fill up this deficiency, and also why they believed in gods at all, or in the *mana*, from which gods are said to proceed.

Any man, in the conscious state, will perceive that, by a voluntary application of certain means, he can attain certain ends, provided no strange factor interferes. He knows also that similar ends are attained by the will of his human kin. But, a much larger set of phenomena which affect him more or less, he can neither understand in their workings, nor trace to their real source. These he logically ascribes to the only cause of changes he is conscious of in the inside and the outside world, will—a will, of course, fashioned after his own will and located either in the objects, or in imaginary beings that are supposed to be behind. In fact, wherever we put forces, primitive man puts wills. But wills or will are never detached from the conception

of a *person*, even when they are attributed to inanimate things. This superhuman or extra-human faculty may be distributed among all kinds of beings, from sorcerers to ghosts, from beasts to plants, rocks and clouds personified; it may be attracted, acquired, increased, transferred, restrained, suppressed by all kinds of processes (this is *magic*); or the agents invested with it may be propitiated by the same ways as human powers in real life (this is *religion*). But, behind it, is there not always the notion of a quasi-human person and, I will even add to please Mr. Crawley, of a living person. So far, it is true to say that *vitalism* is the origin of religion as well as of animism.

There has been lately a renewed controversy about the dilemma as to whether religion was first an individual or a social instinct. Mr. Crawley claims it to have been primarily individualistic. Yet, one ought not to forget that, from the first, it must have influenced social life, directly, in sanctioning the customs and institutions of the tribes, indirectly, in fostering the gradual development of the altruistic faculty which seems more and more its essential aim. With the concluding part of the paper I quite concur. The author is to be congratulated for having understood that the full application of the evolution principle to our spiritual nature, the acknowledgment of a very small beginning for the religious feeling as well as for the other characteristics of man, in no way prevents a high appreciation of religion in its higher phases and a clear comprehension of the part it has to play in the future.

FROM PROFESSOR E. ANWYL.

Religion is the resultant general attitude, not always fully present to consciousness, which man, singly or collectively, adopts towards the aspects of being which condition his experience, the ideas in which he more or less definitely interprets this mental attitude to himself and to others, and the language (whether by means of movements, gesticulations, acts, rites, customs or articulate speech), in which he expresses or seeks to express, either alone or in conjunction with others, by means of inherited or personally invented forms, the attitude which he thus maintains, or the ideas connected therewith. All these aspects of religion, like thought and language, vary with experience both spatially and temporally, but are brought into a relative order by the salient facts of common human experience and by the clarifying forces of the mind, working as in language both subconsciously and consciously, in the grouping and re-grouping of ideas. Hence religion, like language, is capable of continual evolution, as is especially seen in the more progressive religions of the world. At the same time the element of tradition, which is inseparable from it, tends to hinder violent breaches of con-

tinuity in its relations to its past history. Like language, religion may express itself not merely in statements or questions in the indicative mood, but also in such moods as the optative, the precative, the subjunctive and even the imperative. The attitudes of longing, supplication, doubt and even the compulsion of magic, find their places in various combinations in the religions of the world.

FROM PROFESSOR GARVIE.

Interesting and suggestive as Mr. Ernest Crawley's communication on "the Origin and Function of Religion" is, it is to me unsatisfactory in result because based on a wrong method. (1) As a progressive development, gaining fuller meaning and higher worth as it moves from its starting-point towards its goal, the higher phases of religion are not to be explained by the lower, but the lower are to be interpreted by the higher; a philosophical or teleological treatment will yield better results than a scientific or causal. (2) Accordingly the savage is no infallible guide regarding what the civilised races must once have been; why does the former stagnate, and why have the latter advanced, if their beginnings may be assumed to have been exactly the same? (3) On what grounds are the races selected for special treatment assumed as typical for the purposes of this enquiry? In a German book recently published, "Die Entstehung des Gottesgedankens und der Heilbringer," the Red Indians are chosen as typical. Each enquirer is likely to regard the savage race he is most familiar with as typical, the personal equation is almost sure to intrude itself. (4) The enquiry into the origin and function of religion cannot be separated from the investigation whether religion has only subjective worth, or also objective truth. As one who believes that there is a divine reality more or less clearly apprehended, and more or less closely approached in religion, all enquiries into religion as merely a psychic state appear to me defective. To answer the question of the origin and function of religion, data, ignored in the paper, must be examined and estimated. As contributing some data, however, the paper is welcome.

FROM PROFESSOR LEUBA.

When the sociologist and the psychologist turn their searchlights upon the same problem, one may expect it to be speedily and adequately solved. They have both been studying the origin, the nature, and the function of religion, and now they seem to have come to a substantial agreement.

For a long period sociologists and, alas, psychologists also, dominated as they were by the prevalent intellectualistic point of view, had fallen into the habit of thinking that religion is a belief of some sort. They did not say that religion involved, or was conditioned by certain beliefs; they affirmed that religion *is* this or that kind of belief. It would be just as accurate to speak of each and every particular class of human activity as being a belief, on the ground that they each involve some particular belief. Commerce, for instance, could just as correctly be defined as the belief in the productiveness of exchange, a definition absurdly inadequate.

The most important general progress made by contemporary psychology is the change from the intellectualistic to the voluntaristic standpoint. Modern psychology has at last clearly understood and acknowledged that Will is the primary fact of life and that Intellect is derived, that it is the servant of the will, the tool used for the realisation of desires.

The psychologists who, during the past few years, have devoted their attention to religious life have, I believe, all come more or less clearly to that opinion. They would, therefore, rejoice to have Mr. Crawley point to the Will-to-live as the source of religion. Several years ago, I wrote in the "Bibliotheca Sacra"—"The fundamental spring of religion is the love of life, at any and every level of development, in the same sense as it is the spring of every other manifestation of life. Therefore, there are no exclusively religious impulses, and religion derives the right it may have to sacredness from whatever sacredness belongs to the Primordial Instinct." This partial theory of religion I have since re-stated and developed in several places, in particular in the "Monist" for 1901, under the title "Introduction to a Psychological Study of Religion," and in the "Outline of a Psychology of Religious Life" in the *American Journal of Religious Psychology*, Vol. I. page 160 and ff.

Something, however, would be lacking in these statements if they were intended to give information concerning the ground of separation between the religious and the secular life. That the culture of the savage is entirely religious, as Mr. Crawley affirms, I am ready to admit, but he does not tell us what it is which makes the manifestations of the primitive instinct in the savage to be all religious rather than all secular; neither does he tell us what causes, later on, the cleavage so clearly marked in the higher societies. But, since Mr. Crawley declares that the primary instinct is "the origin of everything," he is aware of the incompleteness of his statement when considered as a definition of religion.

If the root of religion, as also of every other human experience, is to be found in the Will-to-live, it is only when man comes to con-

ceive of the powers which, as he thinks, can be used to help him realise his will, as belonging to two categories that the religious is separated from the secular. Until then, *i.e.*, as long as that intellectual distinction is not made, the whole of life is religious, because the only conception framed by man of the agents with which he thinks he is dealing is the one that leads to the kind of life called religious. He tills the ground secularly who trusts entirely in the action of that class of regular powers now called physical to bring the seed to fruition; he tills the ground religiously who places at least some hope in another kind of power, the characteristics of which I shall not attempt to mention in this brief communication.

A very interesting part of Mr. Crawley's paper is the one in which he declares that "the vital instinct in expansion produces sacredness in its object, and this sacredness is usually concentrated on life, as it arises from the feeling of life." I shall await with keen interest the publication of the full paper, in the hope of finding there the development he has no doubt given to that idea.

FROM MR. R. R. MARETT.

I am greatly interested by Mr. Crawley's views as to the fundamental meaning of religion, so far as I can make them out from the short summary that has been kindly sent me.

I think that he has gone the right way to work in seeking for the essence of religion in something much wider than Dr. Tylor's animism or Dr. Frazer's propitiatory worship. His "psychic tone or quality" I do not object to, vague as it is. I hold that religion is, psychologically regarded, a form of experience in which feeling-tone is relatively predominant.

The reference to "the will to live" is, to me at least, not very illuminating. When Professor James in his "Varieties of Religious Experience" finds the origin of religion in "the subconscious," or Professor Stewart, in his "Myths of Plato," in "the vegetative soul," I confess that the alleged first cause strikes me as altogether too remote and indefinite to serve a scientific purpose. But Mr. Crawley's "will to live" seems to me to be even more indefinite and remote.

One seems to get at something more solid in "a heightening or deepening of the nervous organism" (*sic*), such as we feel when confronted by "matters of life and death." I think that primitive religion, in one characteristic aspect at all events, is the wonder-working mood, a certain exaltation of feeling being implied as its condition. On the other hand, awe (as felt, for example, towards a corpse, or an eclipse) appears to me to be another characteristic kind of religious feeling, and one which

Mr. Crawley's hypothesis fails to cover; for awe is, in psychological parlance, an asthenic emotion, that is, involves depression rather than exaltation, or as Mr. Crawley puts it, "the vital instinct in expansion." Though open to conviction, therefore, I still incline to regard awe as the bottom fact in religion, and to suppose wonder-working to have become distinctively religious just in so far as it came to be regarded with awe, namely as something supranormal. My counter-hypothesis, in short, is this, that the essence of religion is miracle, and that the "miracle of grace" is but one form of miracle and therefore of religion.

I conclude with two observations on points of detail. (1) I am not sure that I grasp the precise point of Mr. Crawley's allusion to the *churinga*. My own guess is that the *churinga*, originally the bull-roarer, was taken by the Australian as the type of a soul-box (so to speak), because of its indwelling voice; and consequently that animistic or quasi-animistic considerations underlie the ascription of magico-religious efficacy to it. (2) Do I understand Mr. Crawley to confine the conscious exploitation of religion to a comparatively advanced stage of culture? I should have thought that religion had been consciously exploited by designing persons for a very long time back.

FROM MR. H. OSMAN NEWLAND.

I cannot say that Mr. Crawley's theory of the origin and function of religion is satisfactory to me. In the first place his introduction is confusing. He tells us that "Religion after being the guide of humanity throughout history and for long prehistoric ages" "is not yet fully understood, and that its place in the psychology of individuals and society is not yet fixed." To me it is incomprehensible that anybody or anything which we do not understand can be our guide. If, however, it be possible for any people to accept such a guide, surely the place of such a guide is defined already in the psychology of such individuals or societies.

Secondly, Mr. Crawley, after admitting the complexity of the nature of religion and the divergence of views upon it, proceeds to deal with it as a simple matter based upon the elemental facts of life throughout all ages. The elemental facts of life, however, are not necessarily the same in every age; and the mental capacity and attitude of individuals and societies (particularly of the former) in all ages, modifies and adjusts the relative value of the elemental facts of life. The place which these facts occupy in the psychology of the individual and society is, therefore, variable.

Thirdly, Mr. Crawley makes no distinction between Religion *per se*, and Religious Systems, *i.e.*, Sacerdotalism superimposed upon Natural

Religion. Every illustration brought forward by the author of the paper, in support of his theory, seems to me to be sacerdotal rather than religious.

Religion is primarily, I admit, individualistic in so far as it is an emotional state or tone; it may and does, however, become social, when by indirect means the individual recognises or becomes conscious of similarity of emotion in another. It is not individualistic in the sense that it is, primarily, the result of egoism or self-contemplation, for religion primarily is not merely an emotion awakened by dreams or distorted pictures of ancestors, but also of emotions called up by fear and wonder of the world outside man, and particularly of those phenomena which puzzle and perplex primitive peoples.

Religion is connected primarily, then, with the worship of something external to themselves which they neither know nor understand, although they may perceive and feel. Sacerdotalism materialises and anthropomorphises religion, moulding it in an individualistic or nationalistic form according to whether sacerdotalism be in antagonism to or allied with the existing political powers. Religion itself, when it breaks away now and again from sacerdotalism, is always altruistic, social, cosmopolitan.

It must, however, be admitted that without sacerdotalism religion could never have played its great part in the history of the race, any more than the world could dispense with the egoist or the altruist.

The essence of the one is self-sacrifice and Death. The essence of the other self-assertion and Life. From this point of view, a keener and more philosophical, as well as scientific investigation is required of religion and its function than that afforded by Mr. Crawley.

FROM PROFESSOR SERGI.

In my book "L'Origine dei Fenomeni Psicici, e il loro Significato Biologico," I have stated that psychic phenomena are of a biological nature, and have the same characteristics as the vital functions; or in other words they are phenomena of conservation of animal life, and specifically are functions of protection.

From my study of the manifestations of animal and human life in their origin and development from physical facts to intellectual characters, from elementary to complex phenomena of individuals and societies, I have found that there are five orders of psychical phenomena, which proceed from the one principle of the protection of life: Phenomena of (1) nutrition; (2) individual defence; (3) sexual relations; (4) parental relations; (5) social relations. These five orders of phenomena are divided into two classes: 1. Phenomena of *primary* character of

protection, including facts of (a) individual defence; (b) parental relations; (c) social relations. 2. Phenomena of *secondary* character, including facts of (a) nutrition; (b) sexual relations.

The separation of these categories or orders is, however, not absolute, since the facts they cover are interconnected. Life phenomena are naturally unseparated, and have their common origin in life itself; therefore, they all have, as I have stated, derived their biological character from this original source. But in their evolution many of these factors have taken on new characters, such, for example, as those underlying social facts.

Now we find another group of psychic facts which present aspects similar to those of the protective characters; these are the religious ones. I have also demonstrated that religious manifestations have the fundamental character of the protection of life in human species, in whatever religion, low or high, they may be found. For this reason religion is in continuity with all the facts of human life, individual and social, instead of being the psychic tone or quality which Mr. Crawley seems to consider it.

FROM PROFESSOR STARBUCK.

The first point that impresses me in Mr. Crawley's paper is that he clearly distances the imperfect notion that religion is primarily a *belief* in something. Until recently this conception, especially among the historians of religion, has stood in the way of any real advance. From the view-point to which he is leading us, it is difficult to regard the beliefs of primitive peoples as other than incidents or accidents in the midst of a multiplicity of religious reactions that have their source in and are directed towards instinctive life-adjustment. It is difficult, too, to observe the facts of religion about us now—its ritual, singing, music, genuflections, enthusiasms, its consecration of birth, manhood, marriage and death, its attempts to sanctify the social relationships and all the rest—and not regard its beliefs as “by-products” or “epi-phenomena,” as Professor James aptly terms them. Beliefs are important in that they are certain *discriminate* or *determinate* points in a set of processes whose fundamental quality is that they are dynamic, are concerned with getting on, are a function of life in its fullest adjustment. The beliefs are pegs by which the spiritual life has tried to steady itself as it is threatened with being driven from its course by the various winds that blow. Or, let us say, they are the outstanding points by which the developing religious self-consciousness tries to picture to itself and others its whereabouts, and the direction of its going. Hence it is, because of their definableness and communicableness, that beliefs have

acquired their *seeming* importance in sermons, conventions and creeds, and in initiation into religious organisations, while the deeper facts of religion have remained relatively unnoticed. I suspect that beliefs or any other intellectual functions have played a rôle almost as insignificant in determining what mankind does and how it behaves religiously, as that of the principles of construction and architecture in teaching the beaver to build a dam, the laws of æsthetics in helping the bird to sing, or systems of economics and sociology in establishing savage communities. The evolutionary point of view and the data of genetic psychology are hopelessly undermining an inadequate intellectualistic conception which has so long held sway. Functional psychology does not at all minimise the importance of beliefs. It renders inevitable, however, the notion that they are neither causal, nor ends toward which religion moves, but rather the criteria to ourselves and others of the course that life is taking and of its attainment.

The functional point of view of religion is happily relieving us from the strain of an impossible intellectualism; and now Mr. Crawley has placed us comfortably in the midst of the actual facts of religion in such a way that they fall into a much more harmonious perspective. He calls religion one of the primary instincts, a growth from human nature, a vital feeling, a will to live. In so doing he is fully aware of the difficulty of circumscribing the religious instinct among the other primary instincts. What are its differential marks? In specifying that its function is to consecrate the living of life, to produce sacredness in its objects, and the brightening and deepening of life when confronting its crises, I have the feeling that we have here a theory that furnishes a setting for innumerable facts that have escaped Tylor, Spencer and Frazer. Upon this theory I have two observations to make, one of which has reference to the *functional* aspect of the question and the other to its *structural* aspect.

In the first instance, I am concerned with a vast number of phenomena that do not fit neatly into Mr. Crawley's theory. I refer to the observances that seem to have no object at all or are indifferent as to their object, and those that have no assignable purpose unless it be that the expression itself is a sufficient excuse for their being. Take, for example, *worship* as it appears in prayer, song, ritual, artistic discourse, and the like. It is a central fact in religion, certainly, both primitive and modern. Is its basal *quale* not simply that it is a species of self-expression? It is "elevatory," to be sure, but is it not elevatory in the sense that it liberates a higher form of nervous energy (if one may put it in such crass terminology) rather than in the sense of consecrating life or its objects? Is its *raison d'être* not that life is essentially dynamic throughout and wants to express itself? Is not this fact of the dynamic or auto-dynamic character of life the central source from

which it draws, and does this not "explain" most of the achievements of literature, art, religion, and the bulk of the motiveless things people do in their ordinary living, ranging all the way from the beating of the heart to the worship of the Highest? This may be what Mr. Crawley means by "the vital feeling" or "the will to live." If so, it might well be elucidated that this theory of religion is in line with the Schiller-Spencer theory of the play of animals and children and of the art impulse, a theory which the later one of Groos has enriched rather than superseded. In so far as this theory of religion is emphasised, it must then be defined as a form of higher—let us say spiritualised—self-expression.

The second suggestion I wish to venture is that, valuing as we must the illumination that is coming to the study of religion, its wisdom is going to suffer without what is sometimes called, in contrast, the structural point of view, *viz.*, taking account of the *objects* of religion, in defining it, and of the personal attitude of the devotee towards them. Religion consists of a heightening and deepening of the nervous organism, so does love. It produces sacredness in the crises of life; so does "natural selection" and "organic selection." It consecrates the objects of life; so does art. It affirms the reality of the higher life; so does morality. It is a form, if I may reiterate it, of higher self-expression; so is play. Distinctions must be more neatly drawn at every step between religion and kindred phenomena, and this can hardly be done, I think, without recourse to a description of the objects and attitude involved. For instance, appeal to the conventional dictum of "a higher power or powers," or conjure up a new one such as "a conscious presence," or "a supersensuous reality" as the object of religion, and finer lines of distinction are directly found to run through the indefinite confusion of primitive reactions; and the facts of religion begin to separate themselves away from those of art, morality, philosophy and the like. From the structural standpoint, the student can project lines of demarcation among the indefinitely complex set of processes from which he would trace origins, and in turn the functional approach is able to soften the hardness and artificiality that exact definition is constantly imposing upon itself. I suspect that the two attitudes must be mutually supplementary in adequately defining the origin and function of religion.

Apart from these two shades of mental bias, I wish to express my full appreciation of the paper.

FROM PROFESSOR S. R. STEINMETZ.

Of the definitions of religion, I think the first given by Mr. Crawley the best; his objection, that the god frequently is not spiritual, can be removed by putting the definition in this form: religion is the belief

in supernatural agents, whether spiritual or not, together with a certain emotional attitude towards them.

I strongly object to Professor Durkheim's conception of religion as an obligatory creed,* for I can conceive very well an obligatory creed that may only metaphorically be called religion, such as the belief in the superiority of a certain group among its members (nobility) or the superlative estimation of a certain artist or style in a circle of admirers. On the other side, why should the supernatural conviction of any body, quite isolated, not be called a religion? The creed of an open sect, any one is free to enter or to leave, is still a religion, though it is not truly obligatory. What is to be said of the never dogmatically fixed, more or less undecided religious opinions of the more liberal part of Protestant Christianity? I think Professor Durkheim here a victim of his rather too strong passion for definitions and of his too metaphysical concept of society.

In Dr. Frazer's definition, as given by Mr. Crawley, I object to the addition "superior to man and controlling nature." Very often the supposed supernatural agents are not truly superior to man, or only in some respects; man may punish them or withhold the conditions of their existence. One cannot separate the crowd of small and nearly powerless supernatural agents from the great and powerful; by imperceptible degrees they pass one into the other, and together they constitute the object of religious belief and sentiment. It is quite the same thing with their control of nature; it should be understood *cum grano salis*; the power of any spirit or little god is often very restricted.

It is quite impossible to get at a definition of religion after and by a survey, however large, of religious phenomena. For what are they? What is reckoned as belonging to them? Here, the anticipated definition is already used in limiting the field and gathering the facts for the coming induction. Such and such men I reckon as Mongols—accordingly Mongols are so and so. The definition is the outcome of the classification.

But in classifying mental phenomena I believe we are right in putting together those implying the belief in supernatural agents and the special emotions joined with them, such as awe, terror, admiration, love, etc. The cool, critical acceptance of supernatural agents I should not call religion. In so far I agree with Mr. Crawley, the emotional attitude is essential to religion.

It is not difficult to understand that in all critical situations of life religion is resorted to. I think the old explanation of the origin of religion in most respects quite sufficient. *Primus in orbe terror fecit*

* "Définition des Phénomènes Religieux" in L'Année Sociologique II., 1899. page 22.

deos. But not only terror, fear as well; our whole helplessness in difficulties of life first, of understanding afterwards. Primitive man, and not only he, did not think of his supernatural agents as long as all went its usual way. And the whole conception was not formed in such periods. But as human power failed, and often that took place as a supplement of human technics, one appealed to phantastic aids, believed in because needed. The anthropomorphic projection of oneself into surrounding nature was stimulated by this so often occurring want of help, beyond his own very imperfect technical power. Deficient technics, in the sense of power of control over nature to the fulfilment of human wants, was the first origin of religion, made possible by our mental organisation, in the first instance by our anthropomorphic imagination, working also where there is no question of religion, as in childish plays.

So, I might remark, religion is not by any means at the root of all human activity, as Mr. Crawley has it, but it is the phantastical complement, originally only, and still to a great part, suggested by our sense of helplessness. Religion is the contrast to all human action, as the phantastical invocation of supposed powers. The immortality of the soul is not truly a religious idea, but as life after this is essentially out of reach of human power, and certainly within human interest, it is only natural that man should entrust the supernatural agents with the care of this post-mortal life.

As long as man's controlling power is very small, especially in the momentous phases of life, and human vital instinct is as strong as human imagination, religion will not disappear. Only a very few men are capable of resignation.

But I do not admit that religion is the basis of all culture. There is something in the old conventional, never well-proved assumption that religion is the source of priestly despotism, of the inquisition, of persecution of witches and sorcerers, of religious wars; it was always the great hindrance to all innovations of science. Its power was essentially conservative; I do not deny that it was often quite useful, but as its function was before all that of soothing the individual soul by the representation of supernatural help in and after life, how could it contribute powerfully to the exertion of human faculties, in the controlling and understanding of nature and society?

Mr. Crawley concedes its individualistic character. One of the social functions of religion was its powerful help in regulating the life of the individual and making him conform to the once-attained standard. That was the moral working of ancestor-worship in primitive societies*—

* Compare my "Ethnologische Studien zur ersten Entwicklung der Strafe," 1894, I., page 287 ff.

a much neglected fact—and also in semi-civilised ones, as the Chinese and Japanese. But religion was very rarely, if ever, a progressive way-making power.

In higher culture I think religion is a very dangerous help to living, for it makes us forget the realities of life for imaginary gratifications. Is not the striving after earthly, human, social ideals, a much higher consecration of life, less exposed to discouraging criticism? "Scientific application of religion," the beginning of which Mr. Crawley sees in our days, will undermine its own basis—strong unreasoning belief.

I think the dilemma is this: instinctive religion is apt to be dangerous; reasoning and rational religion will never be strongly rooted in the soul of the masses.

Religion will always be needed by them, it will never leave humanity, but it will and may be replaced for the few by a purely human and scientific idealism, that can and should be rational.

FROM PROFESSOR F. TÖNNIES.

The question and solution proposed involve and illustrate the well-known puzzle of definitions. It would be a gratuitous undertaking to comprehend in a single conception everything that is *called* a religion or a religious system; for this conception would be of enormous latitude and little fit for speculative or sociological purposes. There is nothing so uncertain and vague, so unscientific, as the employment of abstract words in common language. And it must be confessed that a very considerable part of scientific language is not much better and that it cannot be better as long as it is based upon an attempt to comprehend and to interpret the use of common language. Of course, in giving names to our rational concepts, which must be *formed* before they are named, we are seldom at liberty to entirely neglect the names of unscientific and immature conceptions, which have a similar or kindred object. We meet, indeed, in a language half popular, half scientific, as a great part of our conversation is, with a mass of conceptions and names of the same hybrid character. Conceptions and names like "a religion" and "a religious system" belong to this same class.

In the first instance, then, I should propose to keep the two asunder, and it may seem appropriate to denote by the name of *religion* the subjective and private aspect of the same phenomena, which under the name of *a religious system* may be looked upon from their objective side.

Religion may be understood as a belief, or rather a mass of beliefs, of opinions and feelings, which are as a rule common to many people,

mostly belonging to the same stock or race, and which regard the existence and power of dead or of fictitious persons.

A *religious system* is a body of *rules*, imposed by custom or by law or both, and sanctioned by religion itself, the general object of these rules being a *cult*, that is to say, certain actions, which are supposed to please those unseen beings, of whom the existence and power is *believed*.

But a term is wanted to denote and distinguish religion as a form of the *collective will*, which prescribes and sanctions these rules. And seeing religion in the former sense may easily be replaced by a word like faith, or religious faith, I am inclined to think that the very term "religion" ought to be reserved for this powerful *social force*, which in a modern shape is universally understood by the name of Public Opinion, although this social force is still in a very low state of development—while religion has undergone a long and complex evolution—concerned, as public opinion mostly is, with the affairs and doings of the upper strata of society only.

The question as to the *functions* of religion (in this, its reformed sense) must be kept apart from the question concerning its essence and origin. It may suffice for the present purpose to say, that the functions of religion are essentially social, and—what is more important, because little adverted to—that they are of a two-fold nature, apparently contradictory, and indeed very often actually conflicting. For its function is, first to validate and fortify authority, consequently to make the strong and powerful more strong and powerful than they would be merely from other causes; but, second, it goes very far in protecting and supporting the weak, notably women and children, old age, widows and orphans, the poor and the beggars, the sick and destitute. The influence of the first function is eminently *political*, while the second may be called *ethical*.

Religion, then, is not primarily individualistic, but primarily "communistic," if this term be justly interpreted; for it belongs to the vital principle of a community, to be governed and led by persons who possess authority, as well as to help those who are unable sufficiently to help themselves. Religion is the most powerful of social ties, exactly by the twofold aspect of its function, which pervades its whole development, from the most primitive ancestor-worship to the most elaborate "ethical" religious systems.

What Mr. Crawley calls by the name of religion, would in my opinion better be distinguished as *superstition*, or as a superstitious disposition in the individual and in the social mind, which indeed is very closely related to the religious dispositions of both.

MR. CRAWLEY'S REPLY.

In reply to the numerous communications received on the subject and to the many speakers on the occasion of the paper, I shall confine my attention to those remarks which seem to be to the point.

I am glad to find Professor Starbuck, whose work on the "Psychology of Religion" I regard as the most important study of the subject yet made, in general agreement with me. What he says about the liberating of a higher form of nervous energy in, for example, worship, I quite admit, adding, as he suggests, that it is what I meant, but had not fully worked out. As to his second suggestion, the need of the structural point of view, that is all right, but I deal only with origins.

Count Goblet d'Alviella delivers some interesting criticisms of religion in general, and with his remarks on the recognition of *Will* in the Universe I agree, but this view comes, I hold, later in the evolution of the religious impulse.

Professor Leuba's remarks on the modern change to the voluntaristic standpoint in psychology are significant. I am delighted to find that he more or less anticipated my theory a few years ago in the "Bibliotheca Sacra."

Mr. Marett's objections to the "will to live," are answered by the fact that I use the phrase as an illustrative term, not as anything scientific. As to "awe" and other emotions, entering into religion, here, as in the remarks of Mr. Shand, I reply that my object is to get at something *basic*. By "conscious exploitation" of religion, I do not refer to the use made of cults by priests, etc.; what I mean is that these priests did not (as they do not yet) know what religion really is. Conscious exploitation of religion, in the sense I mean, has hardly yet begun, except in Mr. Wells' Utopias.

Professor Tönnies, I think, and others also, waste time

in troubling about definitions. Very significantly he says that what I call religion might rather be called "superstition." Well, that is what other religionists have always called it. Superstition is the religion of other people.

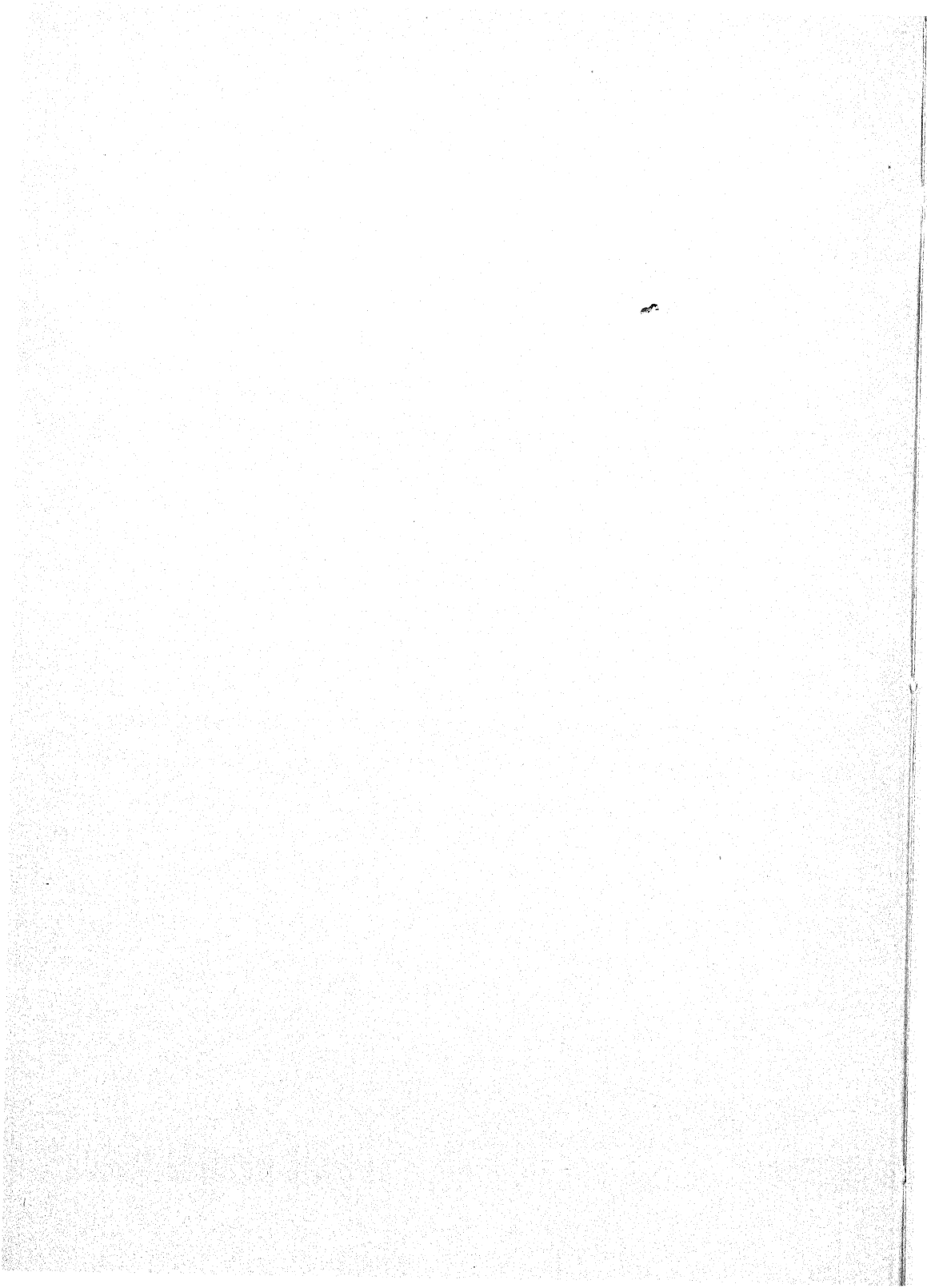
Professor Steinmetz has my gratitude for the phrase that religion is the fundamental complement of human activity. He has really expressed what I vaguely felt. As to the origin of religion from fear, I think Professor Starbuck's studies would give him cause to relegate this to the accidental concomitants of the religious impulse.

Dr. Aveling, in his interesting remarks from the Catholic point of view, agreed with the author's suggestion that religion is not primarily a body of doctrine. He, however, went on frankly to introduce metaphysical arguments, which have nothing to do with psychology.

Mr. Newland asserts that "the elemental facts of life are not necessarily the same in every age." The elemental facts to which I referred are such as birth and death. These are pretty nearly the same in every age. When he speaks of sacerdotalism and the like, I reply that I deal primarily with religious origins.

Mr. Shand built up on the suggested foundation the whole edifice of the religious consciousness from the beginning of history to the present day, including in the erection most of the emotions known to human nature.

Mr. Thomas agreed with Mr. Shand; that is to say, in a discussion of the origin of religion he preferred to confine attention to its secondary or later developments. This is hardly convenient. Mr. Thomas' anthropological criticisms showed that he misunderstood the author's remarks, as well as psychological method.



SOCIOLOGY AS AN ACADEMIC SUBJECT.

By PROFESSOR R. M. WENLEY, Sc.D., LL.D.,
Professor of Philosophy in the University of Michigan.

Address before a Meeting of the Sociological Society, at the School of Economics and Political Science (University of London), Clare Market, W.C., on January 22nd, 1906, Principal Sir ARTHUR RÜCKER in the Chair.

It seems to me best, in discussing the question of sociology as a factor in the education of society, or as a subject to be taught in a university, to give some idea of the difficulties which have been encountered in the United States, under its peculiar set of conditions, in advancing the subject to its due place amongst the others of the university curriculum. Probably I had best treat this at length, and say very little on the systematic side, as to the place which sociology might occupy, or ought to occupy, in university studies. I shall, then, ask attention to the situation in the United States as affecting sociological study; it needs not be said that it affects many other studies as well.

In the first place, in the United States there are to-day more than 400 institutions conferring the A.B. degree. Naturally, such a multitude of colleges and universities will be found of very various calibre; and of these 400 one is not far wrong in saying that there are perhaps a dozen great universities, perhaps twenty or thirty more of the second class, and then a huge number of small colleges

varying in efficiency from a first-rate college, such as the old New England colleges like Amherst and Dartmouth, down to the western colleges, especially those of the far west, many of which are not as good as an ordinary school. Now, the words "college" and "university" are significant terms with us. The college is really what the word means. Like much else in the United States, the educational system, so far as higher education is concerned, began in England and was brought over. For example, when Harvard College was founded in the reign of Charles II., it was erected on the model of an Oxford college. It was ruled by a president and fellows, and has continued to be ruled in this way, nominally, to the present day. So the college still remains, really, a small institution, with few teachers, and usually with few students doing, in the main, purely pass work. That is to say, the college is not expected to undertake original research, or in any way to advance new knowledge, or, if it does not accomplish this no fault is found with it; it is fulfilling its mission in disseminating knowledge already garnered.

On the other hand, the American University is really—and this is a point of importance—a German university built on the top of an English college. So you find in every great university students still doing average pass work; and superimposed upon this there is the complex German university which does research work, trains for future progress in research, attempts as best it can, and often in America with very great success, to extend the boundaries of knowledge.

Now this curious situation—because America has not yet produced a university which is purely American in spirit, although the English college and the German university have been entirely transformed by the American spirit—this situation brings about certain very interesting results which have a most definite bearing upon the teaching of any subject, but more particularly on the teaching of new subjects, in which there is as yet no tradition, and in which, above all, there is as yet no definite body of knowledge which

ought to be taught to the exclusion of much else. It does not matter where a mathematical faculty is found, it will teach the same thing; and so for physics, whether in Germany, Austria, France, or with the United States. The physicist is a particular kind of man. But with the sociologist, or ethnologist, or æsthetician, the situation becomes very different. And it is in this regard that the unique situation of the American University has brought about results little understood in this country.

These results are of two kinds, and they illustrate the law of compensation, that nothing can be developed without paying a price. For attention to one thing, something else must be neglected; for what one gets, one must give. In the peculiar situation of academic organisation to which I have adverted there is a good result and a bad result. The good result is due to the fact that in the United States it has been necessary to do in ten years, and sometimes five years, what in Europe has been spread over at least a century. In my own university, in 1870, there were 1,100 students, 40 teachers, and an income of £17,000 per year. To-day it has nearly 5,000 students, 350 teachers, and an income of nearly £200,000 per year. Fifty per cent. of this increase has taken place since I became connected with it ten years ago. That is the general situation. Four years ago, we founded a department of naval architecture, and imported a professor from the University of Glasgow, the only place in the world where the subject was taught on a university standard. When that professor arrived, he found nothing, not even a room in which to lecture. To-day, at the end of four years, he has the finest equipment in the world for teaching naval architecture. This openness to new subjects, the speed with which they are taken up and developed, is the good side of the superposition of the German university on the English college.

The bad side is this: that all sorts of courses are offered, which, instead of being confined to the university, are naturally pushed down into the college course, and are open to selection by students who are not necessarily pre-

pared. In the faculty of arts, I find this year 157 teachers offering 569 courses. These are dumped down before the student, and he must make a selection. That is all very well when you have a student who knows his own mind, but it has great disadvantages when you take it to the undergraduate department where the student is not yet formed, and where he goes round tasting lectures, just as I am told some women go round tasting popular preachers. In other words, I think we might say that the American student is, in regard to his intellect, something like a gourmand who has not yet the knowledge to enable him to select properly. In these courses there are six directly in sociology and thirty-two more or less supporting it, so this subject is not left out in the cold altogether. This is the German method with a vengeance; but then the United States has not yet got the German gymnasium. All students do not come to us prepared to take such courses as sociology. And, after all, the majority can only learn what has been done. They can do very little towards developing new knowledge.

Another side of the situation is this. It is impossible for any country to staff an enormous number of institutions satisfactorily. Supposing there were to be founded in Great Britain to-day a dozen new universities, could they be staffed as satisfactorily as the present ones? No. The result is great inequalities of teaching. We have men who might be called survivals, and we have men who, in the expressive Yankee phrase, have "happened into" subjects without knowing the reason why. This happens in new subjects far more than in old. Because we know little of sociology to-day, many men can arise and pose as authorities. But very few men can do so in physics. Those in charge of the machine are perfectly aware of this, and realise it is part of the price we have to pay for the extraordinarily rapid development of our educational system.

I asked my colleague in sociology, "Have you yet in any of the great universities got past the experimental stage?" "No," he said, "we are all feeling our way." Sociology is taught in all the universities, and with the greatest good-will

on every side, but still we have not been able to classify it in such a way as to make it rank, as a discipline, with the older subjects. It is still in the experimental stage as an academic factor. And it is in the experimental stage with regard to some of those who profess it. Clergymen with a *penchant* for social studies, newspaper reporters with an eye for obvious movements, and the like, may be excellent persons, but this is no guarantee that they are scientific sociologists.

With regard to the subject itself, it is too frequently made a mere addendum to other departments. We find it as the latest decoration of the School of Commerce, or as a culture element of the School of Economics. Sometimes it lives a precarious existence on the verge of philosophy, and the verge of philosophy is a misty region. And sometimes it appears as an analogue in the interesting field of physiology. This uncertainty of place tends to a lack of clearness as to what it is, or what it is doing—the price it pays for being there at all. If it were not for that price, it would still be shut out. This is an unsatisfactory situation, which, however, is gradually getting better, and will be righted in the long run. Meantime we must do the best we can with the situation as it stands.

The difficulty is intensified, if I may say so, by some of the sociologists themselves. It is not wholly their fault, because the same thing happens with other new subjects. A new subject presents itself first of all in the guise of some older subject which stands nearest to it. We have seen that, for example, in psychology. The psychologist has passed through all sorts of curious stages in the last thirty years—for the year 1875 is the date of the birth of psychology, as we understand it to-day. At the present moment, the psychologist's besetting sin is inability to differentiate his particular problem from the problem of the physiologist. It has actually been said to me by eminent psychologists that they are doing more to advance physiology than psychology. Now, the sociologist has done the same thing. Some sociologists think that sociology is statistics, or psychology, or a kind of metaphysics, or *Kulturgeschichte*. All of this produces

State of Indiana was peopled by various folk, the northern part by New Englanders; the two parts of the state are still, in some ways, as different as night and day. Michigan is peopled by New England, and Iowa by New England and Scandinavia. These men have left an impression so definite as to be startling even now. The material is there for the sociologist, and you do not need a great deal of knowledge of sociology to be able to say something. Thus have risen all kinds of social questioning. There is also the extraordinary purity of the Anglo-Saxons of the Southern States. I have seen far purer Anglo-Saxons in Georgia than in Great Britain. Civilisation has swept round these men in the mountains and left them there with their purity preserved. And the same is true of the Scots and Irish of Pennsylvania.

Another influence is the rush to the cities. This is often remarked in Britain, but is far more remarkable in a country where there is plenty of elbow-room and where there is no reason why anyone should live in the city. The absolute increase of the cities was 18 per cent. The bare facts are sufficiently startling. There are fifty-two cities of more than 75,000, and 150 cities of more than 25,000 inhabitants. In the State of New York 5,350,000 persons live in cities. In New Jersey, out of a total population of 1,883,000, 1,443,000 live in cities. Even more astonishing are the agricultural states. In Illinois there are 4,821,000 inhabitants, of whom 2,000,000 live in cities. In Iowa there are only two large cities, but one-third of the whole population dwell in cities. In California 47 per cent. live in cities. In a country where land is cheap and plenty these figures offer occasion for every kind of theory, and the man who does not know is only too fond of theorising.

Then there are the great race questions in the south, with its negro population. And, finally, there is the fact that the United States to-day is only scratched, even in the old settled states. In Colorado, which is the same size as Italy, the population is only that of Liverpool. In Texas, which is larger than the largest European state, the population is half that of London. In New Mexico, which is

larger than the British Islands the population is only that of Dundee. In Montana, which is as large as Germany, the population is that of Edinburgh. Millions of people can live in these states. I was told several years ago that there was hardly any wood to be got in the older states. I went into the mountains of Kentucky on a walking trip and saw endless acres of timber waiting to be developed. Anywhere in the United States, whether in the old settled states or not, a man can live a pioneer life with the most extraordinary and startling social results. All these facts raise any number of questions, which the man in the street thinks are sociological questions, and he begins to write about them; the result is perhaps more doubtful than useful.

Furthermore, all this is intensified by the very marked character of the American people. The American character is the only proof I know of the main formula of the great philosopher, Hegel, the only proof of the union of contradictories. The American character is evinced just now in an extraordinary medley of contradictory manifestations. There is the startling worship of material success, which can hardly be conceived in this country, and yet there is an idealism in the American character which does not exist in the Englishman at all. Then, on the other hand, there is a widespread corruption, which is only very faintly put before you in this country, and alongside this is extraordinary optimism. How it can exist in face of these open sores is one of the questions that I, at least, cannot answer—it is the union of contradictories. One finds a frequent criticism of other countries, and, alongside of it, an extraordinary conventionalism of society, adopting the habits of older countries and standing by them to be quite sure no mistake is made. Then there is the widespread contempt of law, to which Kipling has drawn attention. If Great Britain had forty-six "gas-works" in continual operation, instead of the one at Westminster, law here would soon be brought into contempt. The American's contempt for law and authority exists along with extraordinary veneration for certain theological and moral doctrines. Then, on the

other hand, a thing which is marked by a foreigner more than anything else, is the American's immense belief in his own country and its future with, alongside of it, a continual craving for approval from a stranger.

Accordingly, we are continually confronted by sociological literature. And the most we can say about much of it is perhaps this, that, like a rolling stone, it gathers no moss, "but think of the excitement it has." I am told there is more nonsense written about sociology than about anything else, except about the subject dignified by the name of pedagogy.

I mention all this to show that we are open to sociology in a way in which it is impossible to be open in this country. On the other hand, the situation is such that the cost is inimical to a truly detached scientific interest. We have done a tremendous work in a very short time, and we have had to pay the price accordingly. That some of us are conscious of this is perhaps the best earnest of our final salvation.

Apart from these special considerations, what is to be said of sociology as an academic subject? There is first the negative view that sociology is not a subject to be added to the university curriculum. We are told in particular that it ought to have no place because it lacks educational value, which cannot be compared with that of physics on the one hand, or of Latin and Greek on the other. To this objection I attach little weight. It has been the objection of the stupid from the beginning of time, and will be to the end of time. If that objection had any standing, we never should have had modern science. Every subject has, hitherto, passed through the same fire of criticism. This is inseparable, further, from what I call a concrete science. Mathematics is the most abstract of all sciences, and that is why it is the only science. It looks at things only from the two relations of time and space, and it gets an accuracy that cannot be expected elsewhere. There is more room for quarrel in physics than in mathematics, and therefore physics is more interesting. In ethics, relations are multi-

plied to such an extent, that one hardly knows what confronts him. Sociology is less abstract than even ethics, and, therefore, a concrete science such as sociology, looking at things in a great many relations rather than in a few, is peculiarly open to this kind of objection. Also it is new, and must take what it can in equipment and men. Not only is it necessary to take the leavings in equipment for the new science, but it is necessary to take the leavings in men. Supposing the sixteen universities of Great Britain were to adopt sociology as a subject of study, would it be possible to fill the sixteen chairs with professors? You could fill Latin and Greek chairs better. The men have to make the new subject, and they have to make themselves. On the other hand, there is this compensation, new subjects offer new views and new points of view, new angles, fresh outlooks.

The second objection is far more serious, the lack of preparation in students. If a boy comes up from a good secondary school, you can assume so much mathematics and classics, and so much misunderstanding of elementary science. But in a subject which deals more definitely with human life, nothing at all can be assumed. This leads to the greatest difficulty. Sociologists do not deal with principles; they have not had time to get to principles. But they deal with processes, and a process is always difficult for the student mind to apprehend. Furthermore, what does the undergraduate know of the science of history, of religions, of anthropology? Absolutely nothing. And the result is that when he comes to study sociology, he comes unequipped. He is fit to study it only after a long and very varied training. A man cannot be trained for sociology along a narrow line. The training must be very broad, and he must have amassed an enormous amount of information by way of introduction, which is not necessarily sociological information. So that this objection seems to me well founded. And the tendency of the youth himself is to think of his own prejudices and ideas as objective facts. He is certain your teaching conflicts with his dearest notions. That is

a thing we can overcome only slowly and with difficulty. My experience is that, in ethics, about one student in a thousand shows the necessary ability to go on in such a way, that at the end of ten or twenty years there is hope of his contributing some light to the subject. I take it the same is true of sociology. The problem is thus raised, what is sociology to be, as an academic study? I should advise sociologists not to be impracticable—not to ask too much. Do not ask for a palace to be set up with a magnificent museum. Sociology must begin as a subject complementary to other subjects. For example, there are two sorts of gaps in ethics which the teacher of ethics cannot fill in and the sociologist can. The same is true of economics. The professed sociologist must fill in these gaps. As a matter of practical organisation, sociology must take its place in this way, and gradually work up to complete independence, as other subjects have done. Biology, psychology, and physical chemistry did so until they were able to stand by themselves. But the subjects with which it is most necessary to be allied in order that it may have a proper scientific basis, are precisely the subjects we do not find in the universities. We want anthropology and ethnic psychology, but there is no time to teach them. We want science of religions, but there is little time for personal religion. But there are subjects like ethics and economics, through which sociology can eventually make its way.

Finally, I ask, what may it demand? While there is a great divergence of opinion on some points, I think all will agree in this: It must be, and can legitimately demand full recognition only as a science conducted by scientifically-trained experts. If it is not that, it has no place in a university. It cannot afford to sink to the level of tinkering round local problems. It is a subject growing out of and demanding others as this table suggests.

HISTORY OF SOCIOLOGY

{ Ethnology.
Geography.
Anthropology.
Psychology.

PSYCHOLOGY OF SOCIETY	{ Comparative and Ethnic Psychology. Experimental Psychology. Linguistics. Archæology.
SYSTEMATIC SOCIOLOGY	{ Institutional Ethics. Social Philosophy. Comparative Religion. <i>Kulturgeschichte.</i>
STATISTICAL SOCIOLOGY	{ Biology and Biometrics. Eugenics. Economics.

General supports:—Greek, Latin; German, French, Italian; Semitics; Indian languages; Mathematics; History; History of Philosophy; General Psychology; Jurisprudence; Æsthetics.

All of these would have to be treated specially. The distinct sociological intention would have to be in mind before you get the necessary essence for sociology out of each subject. The table shows this in a rough and ready way. Sociology appears to me to have its place in the honours school, or post-graduate school, as we call it in America. It is not a subject for the mere "pass" undergraduate. He has enough to do, so let him pass. Otherwise it may readily be a mere appendage of commercial education. If you want to go slumming, go slumming by all means, but have your sociology first. Have your science and then you will see. The demands sociology makes constitute probably one difficulty in the way of its introduction into an academic course; they are also the most powerful argument in its favour.

DISCUSSION

THE CHAIRMAN SAID :

That he should like to point out to Professor Wenley that although in America there were various difficulties, owing to the extraordinarily rapid growth of the country and the population on the one hand and the multiplication of universities and other means of education on the other, there were in England difficulties of another sort. In America there was a virgin soil to cultivate, and nothing but nature to overcome; but in England the relics of past civilisations were obstacles. In digging a new foundation, the chance was that they might come not only upon sand, or a spring, but upon the foundations of a Roman villa. Difficulties due to the action of men in the past were superimposed on the difficulties due to nature itself. In spite of corresponding educational facts, he ventured to think that at the present moment the University of London was in a specially good position to take up new ideas. It had gone through a great revolution; it had been re-organised, and was feeling out for new kinds of work. He might honestly claim for the senate that they were most anxious and willing to take up any subject which came before them with proper credentials and proper support to see what could be made of it. He believed that, owing to the generosity of Mr. Martin White, they were taking a foremost part in connection with sociology. He doubted whether any other university could say as much. It was only two or three years ago that Mr. Martin White had his first talk with him, and they had already made sociology a subject for a degree in the faculty of arts, and for the doctorates. They did not tie down their instruction merely to students aiming at degrees. They were provided for in institutions which held much the

same position relative to the university as did a college at Oxford or Cambridge. About 3,000 students were now taking a full degree course; not a bad result of five and a half years work. But the total number of students attending the lectures given by recognised teachers was no fewer than 11,000. All of these came under the direct influence of teachers who were recognised as worthy to prepare students for the degree. It was thus possible for a student to study any subject, in any way he pleased. He could go where he liked; he had the most perfect freedom of learning. He wanted to impress on them the fact that really there was a competition of subjects put before them, and it only remained for those who were interested in a subject to convince them that reforms were needed in their curriculum and these reforms would be carried out. They took a pride in advancing new ideas and propositions. In short, the university had its eyes and ears open, and claimed to have done as much for sociology as any other similar body. He hoped that the society might in the future look back to the early beginnings of the work in which the university was now engaged, and regard them as the beginnings of something very great indeed. He thanked Professor Wenley for his most stimulating, eloquent and delightful address.

DR. HADDON SAID :

Professor Wenley has the advantage, in telling us about America, of having seen it with eyes akin to our own. As far as my limited experience of America goes, I can endorse practically everything Professor Wenley has said about the Americans, and especially I would like to add my belief that in addition to their regard for "the almighty dollar," and the power it confers, they have an immense deal of idealism. It struck me really that it is a nation of ideals, and this is its most hopeful feature. For example, the idealism manifests itself in a grotesque form in the numerous religions that are continually arising. Further, their universities, and even their museums, are permeated by ideas of research, and surely the increase of knowledge which has no practical application is a form of idealism which further proves that the Americans are not a purely mercenary people.

In London, we have a large number of problems similar to those referred to by Professor Wenley. Thus the University of London possesses a most wonderful laboratory of sociology in which the most varied conditions can be studied by traversing but short distances, and we have our own areas of Jews and Italians, though perhaps not as marked as

this was that all higher syntheses connected with society took pretty nearly all knowledge for their scope. No man was really fit to deal with them until he was forty years of age. There was always danger in the dogmatism of a powerful teacher which led captive young students and hindered originality. He knew there were some who would like to see the whole thing on a more humble basis, such as was indicated by Professor Wenley's reference to slumming, but he questioned if that was quite the work for a university. The excellent work that could be done in the training of relieving officers was not quite the sphere of a university, which could, however, give a powerful lead to such work, because those who had gone through an academic course saw with trained eyes. He hoped sociologists would meet them as practical statesmen and accept compromises, without being dissatisfied if their ideals were not reached at once. Although there were comparatively few students taking up the subject, he pleaded for a few years' patient trial of the present scheme, and according to the results they would be in a better position to amend it.

MR. DAVID MAIR SAID:

The other day there was a meeting of the Public School Science Masters. A classical master laid before them a suggestion that two hours a week of the classical schoolboy's time should be set apart for science, and that in those two hours the boy should be given some idea of what science is, some idea of its main results. The science masters with one accord scoffed at him. They said science is a serious study, and not to be lightly undertaken. With only two hours a week nothing could be done. It seemed to me that the wiser policy would have been to accept the time they could get and make the most of it.

I hope that Professor Wenley will not look on me as the science masters looked on the classical master. For I want to advance the proposition that sociology is a serious study, but the oftener it is lightly undertaken the better.

Professor Wenley's scheme for a sociological course is most attractive and makes me wish to be young again in order to take out such a course. Perhaps most of us when young enough to take the course were too immature to take it. Professor Wenley's estimate of the number of students fitted for the course is probably just.

But in that case how can we expect much spread of sociological knowledge? I venture to suggest single courses of lectures, each fairly complete in itself and sufficiently simple to attract and interest ordinary students in all the faculties, the aim of each course being to indicate the value that sociology has for many different careers. Many a student

might thus be made a student of sociology, and induced to continue the study throughout his life.

A short course on sociology might be arranged in many different ways. A course might be planned to illustrate the differences there are in thought and feeling between grown people and children, between different classes of the same nation, and between different races. It might go on to indicate how sociology enables us to *see* these differences and to understand them as due to different stages of evolution, or to evolution along different lines. It would further indicate how the understanding of these differences of point of view are of value in various spheres of life.

Let me mention a few instances. At the present moment the obvious instance is the opinion most of us hold of our political opponents. It is most difficult, to whichever party we belong, to credit our opponents with a proper regard for the truth and for fair play. A little knowledge of the great differences that are possible in thought and feeling—of *honest* thought and feeling—such as sociology gives, would enable us to believe our opponents to be nearly, if not quite, as honest as ourselves. With the spread of such views how the contentious business of parliament might be reduced!

Another difficult relation is that of employer and employed—each is suspicious, always afraid an unfair advantage is being taken by the other. Masters and men meet and discuss their differences, and each is puzzled that his point of view is so misunderstood by the other. How smoothly things might go if the master would study the working of the man's mind, not assuming it to be like his own, but expecting a mind totally unlike his own.

For the workman to study the master mind would increase the smoothness; but then workmen rarely study at universities, so we are forced to rely on the masters.

It is not long since part of the British army was sent in pursuit of a nomadic tribe. After a long and fruitless pursuit the army came home again without accomplishing anything. Why was this? It is nothing for a nomadic tribe to make war, it is one of the joys of their life. They are always armed and on the march, and to fight is only the slightest deviation from their normal life. Further, their ordinary speed of travelling is three or four times as fast as a civilised army can march. Our only method would be to occupy every square mile of their territory. But this would be a big business, as the nomad has the whole Desert of Sahara at his disposal. A little knowledge of the ways of nomads would have saved us from this pursuit of the Mad Mullah.

To balance this example, it is only fair to take a blunder of the other political party. This blunder was committed by one of the noblest

men our race has produced, Mr. Gladstone. It was due to his nobility of character, coupled with ignorance of sociology. He was a man of great magnanimity, and credited equal magnanimity to the people he had to deal with. On one occasion, he had to deal with a race belonging to an earlier stage of development. They did not understand magnanimity. If a man submitted to a blow without returning it they considered him a coward. And because Mr. Gladstone did not understand this trait of these people we are still paying the price of Majuba.

The care of the Phillipine Islands recently fell to the Americans. Americans tell us in all good faith, that they are governing these islands till the Filipinos learn self-government. In the meantime American citizens are settling in the country, and none but a fairly settled government will do for them. Now, the Filipinos do not come of a stock that can govern themselves, or learn to govern themselves—at least to any serious extent. True self-government is a monopoly of races of Anglo-Saxon stock, and nothing less will ever satisfy the Americans in the Phillipines. A little knowledge of sociology would have shown the American statesmen that if they went to the Phillipines they went to stay.

Instances might be indefinitely multiplied. Such a course of sociology would be enough to show the value of the subject to the school teacher, the employer of labour, the citizen, the statesman, and so on; there would hardly be a student who did not see how it would be of value to him, whatever career he had chosen. And if he could not spare time to follow out Professor Wenley's course, he might at least be interested to pursue the subject in the leisure of an active life.

In this way, I submit, a university could influence the nation more speedily than by the more minute instruction of a very limited number.

DR. WARRINGTON LEA SAID:

That the address had convinced him that it was still extremely difficult to define exactly what sociology was, from the point of view of teaching it as a university subject. He was connected with the Manchester University Sociological Society, founded two years ago, and some of them hoped that by founding the society they could bring pressure to bear on the University, and that a faculty of sociology might ultimately be established. The society held a certain number of meetings in the year, and had hitherto chiefly relied upon addresses given by experts on different subjects. This resulted in widespread interest, but they had not so far developed any special line of study or research. He quite agreed that sociology was a post-graduate subject,

and required as a preliminary a large amount of knowledge. The Manchester Society was intimately associated with the University Settlement, and a large number of their members were interested in social problems. He thought it very important that sociologists should give their attention to the social problems of the day. The sociological spirit was of extreme value to everybody, and would assuredly be of much use in politics and in the legislation of the future. So far their society had been a great success, but he felt convinced that the University would not entertain the idea of founding a chair at present.

REV. PROFESSOR CALDECOTT SAID :

He was one of those persons who were trying to get academic recognition of sociology; it was his endeavour to insist that these subjects were ripening for college studies. Taking the old universities, he was sure Cambridge was ripe. The post-graduate arrangements would be helpful in this way. For example, at Cambridge, most of the triposes were divided into two parts. In these a man got his discipline, and his third and fourth years could, if it suited his tastes, be devoted to sociology. It was now recognised in the University of London on the Arts side; viz., for honours in philosophy, it was one of the optional subjects, and any B.A. proceeding to the M.A. degree might select it as a subject for his thesis. So he thought the University of London had already given a fairly wide open door for its recognition. He felt perfectly sure that students would gradually make their appearance as these opportunities became more known.

WRITTEN COMMUNICATION

FROM PROFESSOR ARTHUR SMITHELLS.

I think there can hardly be any doubt that sociology in itself should be a post-graduate study. Surely sociology is, as philosophy aspires to be, *scientia scientiarum*. Contributory subjects may doubtless find a proper place in the normal pass or honours courses of university study, but anything included in such courses with the name of sociology could only mean either a misleading nomenclature or intellectual pretentiousness.

The great lack of public interest in all new or unluccrative branches of learning in this country gives little immediate hope of public funds or private benefactions being devoted to chairs of sociology. If sociology is to be, as I venture to think it should be, a late and select study, it must of necessity be costly. In the older universities it is doubtful whether, supposing the sympathy to exist, the funds could be spared for securing the services of a competent representative of the subject. In the new universities money scarce suffices for the establishment of the old staples of learning, and of the sciences and technologies that are in ever increasing demand for the purposes of industry and commerce.

The best hope for the establishment of teaching in connection with sociology seems to me to lie in the Sociological Society, which, I trust, may soon have a sufficiency of members and funds to establish a chair in some university where the contributory studies are already being actively pursued.

THE RUSSIAN REVOLUTION

THE RUSSIAN REVOLUTION.

By MR. G. DE WESSELITSKY.

Read before a Meeting of the Sociological Society, at the School of Economics and Political Science (University of London), Clare Market, W.C., on December 20th, 1905, the Right Hon. LORD REAY in the Chair.

The clearest result of the Russian Revolution is the end of Absolutism. Autocracy has accomplished its mission and been replaced by Constitutional Monarchy, which is the legal form of the Government of Russia at present. Efforts to restore Autocracy are as subversive of the lawful order of things there as those tending to establish a Republic.

Autocracy has been one of the historical forms of the evolution of the Russian Government, but by no means a primordial or a permanent and undisputed one. Greek and Roman historians were astonished at the Slavs not living under chiefs, but governing themselves. And the dawn of Russian history shows us two democratic institutions—the *Mir*, assembly of family heads in villages, and the *Vetche*, assembly of citizens in towns. The latter was destroyed in the XV. century. The former exists now as of yore; neither the most despotic ruler nor the most daring revolutionary ever attempted to suppress it. Those institutions, however, though well responding to Rousseau's ideal of pure democracy, failed to procure for the people outward security and inward order—and hence an appeal to princes from abroad.

The first six centuries of Russian history (IX.-XV.)* are filled with struggles between native democracies and the imported dynasty. The Princes of the house of Rurik, deriving their authority, not from conquest, but from the people's will, were appointed as military commanders and magistrates by the *Vetches*, and often dismissed by these. In the course of time, the Princes' authority took root more firmly in the south and in the east, while the whole north became quite republican. The largest of the Russian Republics, that of Novgorod,† had a territory three times as large as France, and lasted two centuries longer than the Roman Republic. The Princes brought with them a new institution, their council, composed of the heads of their following, subsequently joined by the elders of their principality. In the XIV. century, the Tartar Khan Yedigher reproaches Grand Duke Basil I., of Moscow, with having broken a treaty by his own decision, without consulting the best men of his country, as he ought to have done according to ancient Russian custom.

The next two centuries (XV.-XVII.)‡ were those of the Moscow Tsars, who, though claiming absolute power, were in reality limited by an aristocracy whose power was based, not on territorial possessions, but on connections of family and patronage. The Tsar's permanent Council, the *Boyarskaia Douma*, was composed of *Boyars* (Lords), appointed by the Tsar, yet upholding on the whole their family and class interests. It was chiefly as a support against them, as well as against foreign enemies, that the Tsars began, in the XVI. century, to summon the *Zemsky Sabor* (National Assembly), containing representatives of the Noblesse,§ the Clergy, and the Merchants. These *Sabors*

* From the appeal to Rurik by Novgorod, 862, to the repudiation of the Tartar Suzerainty by Ivan III., 1480.

† The two others were Pskov and Khlynov, now Viatka.

‡ From the rejection of the Tartar yoke, 1480, to the foundation of St. Petersburg, and the completion of the Reform by Peter the Great, 1702.

§ The precedence given in Russia to the Noblesse over the Clergy, maintained in the modern Russian Code, has no parallel amongst European nations, and had only one amongst the Asiatic, in ancient Assyria.

were generally convened in all grave emergencies of the State, and their concurrence was asked for imposing new taxes and establishing new laws. In cases of interruption to a regular succession to the Throne, the *Zemsky Sabor* had to elect a new occupant of it. The *Sabors* of the XVI. century had mostly a consultative voice, but in the beginning of the XVII., during the Epoch of Troubles and the Interregnum it brought about, the *Sabor* became the chief governing and legislative as well as the constituent power of the Tsardom. Its greatest historical act was the election of Tsar Michel and the foundation of the Romanov dynasty.* During the whole of Michel's reign, and the greater part of that of Alexis, the Sabors met almost yearly, were truly representative of the people, and had a large share in legislation and government.† It was only after the Tsarish power had been consolidated that (1661) Tsar Alexis refused to convene the *Zemsky Sabor* demanded by the Estates. It was in the same year that Louis XIV. assumed personal rule in France. Representatives of the Noblesse, with or without those of the Clergy, continued to be summoned for special purposes, chiefly for helping to frame new laws. Three such incomplete Sabors sat in Peter the Great's minority, one of which elected his brother John and himself Tsars; a fourth representative assembly was summoned by Peter for judging his sister Sophia.

The two last centuries (XVIII.-XIX.), from the foundation of St. Petersburg, 1702, to the Manifesto granting the

* It is generally admitted that, during the Interregnum, the *Zemsky Sabor* exercised all the rights of Sovereignty, which then lay entirely in the Nation. Some writers pretend that the Sabor, acting on behalf of the Nation, transferred all those rights to the Tsar it elected. Others believe that by a special deed, *Zapis*, Tsar Michel promised to reign in accordance with the national will. Such a *Zapis* was given by Boris Godounov on his election by the *Zemsky Sabor* in 1598, and another by Vassily Shouisky, elected by the Moscow Provincial Sabor in 1606. Prince Wladyslaw of Poland subscribed a list of conditions, framed by the *Boiarskaia Douma*, in order to be elected Tsar of Russia. It seems probable that some agreement was made with the first Romanov Tsar. The idea of a covenant between the Sovereign and the People was deeply rooted in the national conscience of Russia of the XVII. century, and it reappears in the XVIII. at the election of Anna Ioanovna.

† There were seventeen full *Zemsky Sabors*:—1550, 1566, 1584, 1598, 1612, 1613-1615, 1619, 1621-1622, 1632-1634, 1637, 1642, 1645, 1648, 1650, 1651, 1653.

constitution, October 30th, 1905, form the purely Autocratic period, though hardly any reign passed without some effort on the part of the rulers or of the ruled to limit absolute power by a national representation. That period is naturally divided into three sections. The first, from Peter the Great to Nicholas I., is that of Progressive Autocracy. After destroying the Muscovite aristocracy, Peter opened all careers to talent and energy, foreign as well as native. From all countries there poured into the new Empire a stream of strong personalities which was met by another of the same kind from Russians themselves rising from the lowest ranks of life. I never realised that heroic epoch of the Autocracy so vividly as in visiting the Loan Exhibition of Russian Historical Portraits in St. Petersburg last summer, held in the famous Taurida Palace, built by Potiomkin and now accommodated for the first Russian Parliament. What Titanic figures one saw there, of overflowing vitality, boundless energy, reckless daring, apt to become, after a short apprenticeship, victorious generals, successful diplomatists or enlightened statesmen, and equally ready to devote themselves to a strong ruler or to overthrow a weak one. They fought for power—eight palace and military revolutions bear evidence of it.

The drawback was in the unprotected state of the people, arbitrarily governed by those brilliant improvised rulers and their following. The shrewdest among these saw the necessity of reviving under some shape the old representative institutions. Peter the Great himself, who seems to have regarded the Autocracy as a national dictatorship for progress and expansion, provided by a law that two representatives of the Noblesse of each province should be elected into the Senate, the supreme legislative, judicial and governing body, destined to maintain order and justice. That law, never applied, yet never abolished, was much discussed by the reformers of the sixties who wished to make it the starting point of a constitution. However, one principle of the Moscow period still obtained in St. Petersburg, *viz.*, that the making of new laws needed the co-operation of some

representative body.* On the demise of Peter II., 1730, Anna Ioannovna was elected Empress on the condition of accepting a constitution greatly limiting the Autocracy. That constitution, unpopular with the majority of the Noblesse, was soon abolished, but in 1762 Empress Catherine placed herself at the head of a reform movement against Peter III. And after being made by it the ruler of Russia, she redeemed her pledges by summoning to Moscow, 1767, under the name of a Commission for the elaboration of a code of laws, a virtual Zemsky Sabor, in which even the free peasants and the Cossacks were represented.† The Russian National Assembly was thus convened 22 years before the French one, and the instructions given by the Russian electors to their representatives, compare not unfavourably with similar instructions given to French deputies in 1789. The difference in the result is best accounted for by the absence in the Russia of then of the middle class which ensured the introduction of the constitutional government in France. The members of the Assembly of 1767-1768‡ did, however, remarkably good work; and they demanded a permanent national representation. Catherine graciously thanked them for their labours and never summoned it or any other representation again. Yet she made use of several laws elaborated by that Assembly, and granted provincial self-government to the Noblesse and a municipal one to large towns.

During Emperor Paul's reign reformers were grouped round the Crown Prince Alexander, who on ascending the throne as Alexander I., immediately began to draft a very liberal constitution. Napoleonic wars diverted him from that purpose, but he granted a constitution to Finland and another to Poland, with a view of extending the same

* A "Deputation" of the Noblesse met 1728, another "Deputation of the Three Estates, a Sabor in composition though not in name or power, was summoned 1730, and a third one, of the Noblesse only, sat 1761-63."

† Catherine's Voltaire-ianism made her exclude the Clergy.

‡ It sat almost two years and was "prorogued" December, 1768, "on account of the war with Turkey." The Douma, which met in April, 1906, was the first Russian National Representation after the lapse of 138 years.

institutions to Russia proper. A comprehensive constitution was worked out by the great lawyer Speransky towards the end of Alexander I.'s reign. Unfortunately, he was then already won over to the Holy Alliance of absolute Sovereigns and a court intrigue succeeded in contriving Speransky's fall and exile. The disappointed constitutionalists planned a military rebellion which came off after Alexander I.'s death and was crushed by his successor. Of the whole Speransky's constitution remains the name alone he gave to the national representation, *Gosoudarstvennaia Douma*, and which was adopted by the present Russian constitution.

With Nicholas I. (1825-1855) begins the second section of the Autocratic period, that of Conservative Autocracy. Having become the champion of Absolutism everywhere, Nicholas I. undertook to convert the progressive and temporary dictatorship, which till then had been the Autocracy, into a permanent and stationary form of government. With that object he instituted a systematic reaction against the reforms of Catherine and Alexander I. On the other side he earnestly endeavoured to introduce order and legality into the machine of government, and to protect the people against the arbitrariness of the administration.

The outcome of those efforts was the creation of that type of bureaucrats, outwardly correct and dignified, continuously busy with routine work, devoid of initiative themselves and bent on crushing it in others. Talent and public spirit came to be regarded as dangerous to the State; mediocrity was cultivated as the safest virtue. The Russian intellectuals, at the head of which had marched Catherine and Alexander I., were thus driven into opposition, and the whole literature, which under Nicholas I. rose to a high degree of development, was permeated by a hostile tendency. It is melancholy to observe the failure of that high-minded patriotic monarch's best and most beneficent intentions. Throughout his life he was anxious to free the serfs, but never found the opportune moment for undertaking it. He created, instead, in order to secure his subjects from the abuses of the functionaries, the Corps of Gendarmes, a kind

of occult government, which unfortunately became later an object of even greater complaints than the outward government it had to supervise.

Alexander II. (1855-1881) was the greatest Russian Emperor after Peter the Great, and the wisest and most beneficent of the Russian rulers of all times. His reforms were not mere changes of names and forms, but great, real and essential reforms, at once liberating and constructive. However restricted and vitiated in after years, they are still, amidst the chaos of bureaucratic mismanagement, the only institutions apt to serve as the basis of a renovated Russia. Those reforms lacked only co-ordination and crowning by a national representation. Alexander II. was going to sanction the summoning of a Representative Commission, devised by Count Loris-Melikoff,—which was to have, in truth, only a consultative voice, but would undoubtedly have evolved a full-righted National Assembly—when the Tsar Liberator was murdered!

We have the testimony of one of the most determined opponents of the Autocracy that “moderate concessions” granted at that moment “would have been hailed with enthusiasm and would have paved the way for the gradual and slow passage from absolutism to representative government.”* The Fates denied that achievement to Alexander II. and reserved it for his grandson.

Alexander III. (1881-1894) had a high sense of duty, a firm purpose and a strong will. If he had seen the practical usefulness of a constitution he would certainly have had the courage to establish it. Unfortunately the plan of convening a Zemsky Sabor, laid before him by Count N. Ignatieff, did not strike him as being workable. It was replaced by that of a Commission of Experts nominated by the government. Experts actually arrived in St. Petersburg, but the Commission was not assembled. Some of the confidential advisers of Alexander III. privately gave assurances that the ultimate

* “The Revolution in Russia,” by Prince Kropotkine. “XIXth Century and After,” Dec., 1905.

end of the government was a Zemsky Sabor, composed of representatives of all Russian classes, as under the Moscow Tsars. It was only necessary, before that, to organise Russian Society and to strengthen government authorities. Nothing whatever came out of those far-reaching plans, while under the pretext of strengthening authority, a bureaucratic war was waged against the reforms of Alexander II. The press was curbed, the independence of the judges was curtailed, the Zemstvos restricted in the exercise of functions assigned to them by law, and the whole class of peasants deprived of the right of electing their representatives to the Zemstvos and placed under the tutelage of special functionaries with arbitrary powers. Martial law and a state of reinforced protection were proclaimed in the greater part of Russia and maintained throughout the whole reign. On the other hand, Alexander III. knew how to preserve peace under very difficult circumstances ; he concluded a popular alliance which proved to form a guarantee of peace in Europe ; and he lent his constant support to the efforts of two great ministers, Vychnegradsky and Witte, to establish order in the finances of Russia. Personally Alexander III. was universally respected and his death lamented in and out of Russia. He left his country with all the appearances of might and stability, the prestige of Russia being at its climax. Only, deep underneath and invisible from high places, were lurking germs of great and terrible upheavals.

Nothing could be more natural for his successor, animated moreover by filial piety, than to follow in his father's footsteps. It was the duty of his ministers to inform him of the real state of Russia and to point out the necessary changes. They have singularly failed to do so. And it is the more deplorable as the young Sovereign possessed every quality for recognising the truth once it was placed before him, and of acting accordingly afterwards. Emperor Nicholas II. is of a mild and gentle disposition, a patient and attentive listener, a clever inquirer, a conscientious worker, enlightened, intellectual, and humane. He showed what he could achieve when following his own

inspiration in convening the Hague Conference, which may prove to be a real step towards general and permanent peace.

The Bureaucracy, however, was more solicitous of its own interests, and, not satisfied with having all but destroyed the liberal institutions created by Alexander II., began to assail the conservative safeguards established by Nicholas I. That emperor had edicted that a law, to have its full validity, was to be discussed by the Council of Empire, receive the Imperial sanction, and be promulgated by the Senate. In pursuing their suicidal policy, the Bureaucrats found it more convenient to set the legislative body aside and to make laws by Special Commissions formed of themselves. Also by the so-called Opinions of the Committee of Ministers. Important laws were even drafted neither by the Council of Empire nor by the Ministers, but by inferior officials, from whose report published in the "Official Messenger," legislators and ministers learned the existence of the new law. Finally, laws were suspended or modified by "temporary regulations," not promulgated openly, but contained in secret circulars of the head of some branch of administration. A colossal confusion ensued and it became almost impossible to take any measure without conflicting with some of the innumerable and contradictory, ordinary and extraordinary enactments! And the conscious or unconscious disregard of bureaucrats for known and fundamental rules of the Autocracy undermined the respect for legality even in law-abiding classes of the population, while it encouraged the adversaries of order and authority in the prosecution of their sinister schemes. A startling deterioration became noticeable in the *personnel* of the Bureaucracy. Many of its best elements left it for other careers or occupations, with the consequence that inefficiency and corruption, rife already, became now formidable. They would be, indeed, monstrous if I believed the stories told me by bureaucrats in high position concerning one another. Luckily, by dint of sifting them and confronting each with the other, I have been able to convince myself of the great

exaggeration, if not even complete invention, of many of them, due to mutual suspicion as well as to want of free publicity. I have myself met honourable and dutiful men in almost every branch of the administration, and I believe the majority of the functionaries are honest and thorough, or inclined to be so. Unfortunately, it is the actions of the minority, of those few who know how to manipulate the wheels of the bureaucratic machine, which injure the reputation of and give an appearance of foundation to all kinds of charges against the Russian administration.

Previous to its entire collapse the bureaucracy made one final effort to save its power and to regenerate society by bureaucratic methods. The late M. Plehve was an honest, clever, energetic administrator, though of a limited intellectual horizon and without the depth and breadth of a statesman. His plan was to restore the already shaken authority of the Government and to consolidate it so as to render it invulnerable; then to associate with its work the loyal and well-meaning part of society. The form of that association was never clearly stated by the dictatorial minister; it is supposed that it would have been on the lines of a consultative assembly. What the public saw of it was only the determined crushing of the most timid opposition and of the mildest criticism by quite arbitrary measures and with a complete disregard of existing laws. Yet towards the end of his career, Plehve is believed to have recognised the vanity of his efforts and the necessity of a change of system. He drafted very liberal measures regarding the Jews, which would have greatly improved their condition, and had in view others of a more general character. But, like all Russian, and Continental, conservative statesmen, he proved to be incapable of carrying out even the reforms he most approved. The effects of his system were most disastrous and contributed greatly to increase the violence of the tide of the Revolution. By his persecution of moderate liberal and conservative leaders he disorganised the loyal parties which longed to support a reform compatible with strong monarchical power; while

the radical and revolutionary parties escaped his control and succeeded in strongly organising themselves and preparing strikes and rebellions, as well as Plehve's personal catastrophe.

During all that time the native intelligence and the sympathy of Emperor Nicholas were impelling him to pierce that wall erected by the bureaucrats between him and his people, and to grant the reforms he judged to be necessary for the welfare and the happiness of his country. The manifesto of 1903 proclaimed freedom of conscience for all the religions of Russia and called the people to a comprehensive share in the management of their affairs, extending the sphere of provincial and local self-government. The bureaucracy set her teeth against that act of the Sovereign, narrowed and altered its signification by administrative circulars and orders, and practically prevented its application. After new efforts in 1904, remaining fruitless from the same causes, the Emperor finally imposed his will in August, 1905, and the great principle of national representation was clearly proclaimed. Unfortunately, at that very moment the only statesman able to carry out the Emperor's will was far away performing the great task of pacification. It was only in October, 1905, that a formal constitution, on a broad scale and containing all the liberties considered necessary in most advanced constitutional states, was promulgated, and a unified government created for carrying it out.

It is useless trying to predict the immediate future, and it is safer to turn to the general law of revolutions as exemplified in the history of different European nations. Every revolution can be represented by a curve slowly climbing up, from liberalism to more and more extreme radicalism, till it reaches its climax of anarchy, after which it rapidly descends to a more or less pronounced reaction, mostly a military dictatorship, and, finally, a moderate solution intervenes, the resultant of the forces of movement and of resistance, which provides the measure of order and liberty essential to the further development of a nation. The existence of railways and telegraphs, as well as of all

other appliances of modern civilisation, does not admit such long contests as those of the XVII. or XVIII. centuries, and the duration of the Russian revolution could not approach that of the English or the French, but there would be a danger of the recurrence of the revolutionary movement if the solution were not satisfactory enough to the great majority of the nation.

After a careful collation of the policies and programmes of all important representative parties, I have been able to ascertain the points on which all Russians are, I believe, agreed. These constitute a kind of national programme which might be stated somewhat as follows :

1. Free development of the individual; the four necessary liberties of conscience, speech, meeting, and association.

2. Social reforms.

3. Unity of the Empire, with local and provincial self-government, and equal rights for all religions and nationalities; and

4. Peaceful foreign policy. This may be further defined :

- (a) Development of the competence of the Hague Tribunal in the sense of the proposals by the Russian Delegates at the first Hague Conference;

- (b) Abstention from all expansion not justified by the needs of the country and not approved by the nation;

- (c) Fulfilment of the existing international obligations, such as:—(1) The Franco-Russian Alliance, basis of the Russian Foreign Policy; (2) The Austro-Russian Special Agreement; (3) Treaty and moral obligations towards Eastern Christians; and (4) Moral obligations towards all Slavs, and

- (d) Economic regeneration by the development of the natural wealth of Russia with the assistance of foreign capital and foreign enterprise surrounded with all guarantees.

As regards the economic and financial position of the country, I believe it is the opinion of the best practical judges that the time of acutest stress is over. It is significant that English firms having business in or with Russia are not contracting, but rather extending their operations. Large investments are being made in land, the prices of which have gone down just now, also in industrial shares; new companies are being founded and new concessions eagerly sought and acquired.

Looking at the political future, I must say that to me a disintegration of Russia is simply unthinkable, because no part of the Empire, and no portion of its people, I believe, wish to separate from it. Since recovering what they consider their rightful autonomy the Finlanders are not attempting any further severance, but rather manifest their desire to remain connected with Russia. The most important nationality after the Russian, the Poles, are emphatic in their protests against any suspicion of separatism, which they consider as an insult to their commonsense; the most respected Polish leaders have repeatedly declared that a separation from Russia would only be detrimental to the material and moral interests of the Polish nationality. Neither are the internecine feuds of the Armenians and the Tartars to be considered as militating against the unity of Russia. Various races are so mingled in the Caucasus that none of them could perhaps exist apart from others and without being linked to the rest of the Empire. The Lettish rebellion in Livonia and Courland was directed against the German landlords, and though as a friend of German culture I must deplore the fearful blow it has received there, I cannot see any danger in consequence of it for Russian unity. Much more serious would have been the case if the revolted population of the Baltic provinces were chiefly German.

I should like, finally, to say a few words about Anglo-Russian relations. I arrived in England 13 years ago, imbued with the belief in a permanent Anglo-Russian antagonism. Yet gradually, and to my great astonishment, I became aware that there was absolutely nothing to divide our two

countries except mutual distrust and suspicion. My study of Anglo-Russian questions was already so advanced at the time of the South African war that, in opposition to almost all Continental publicists who saw the case for one side only, I was able to see it for both sides; and in a discussion in the Russian Press concerning the eventual issue of that war, I felt bound to express my opinion that the maintenance of the British naval and colonial paramountcy in the World was, from the standpoint of the interests of Russia, more desirable than its transference to other Powers. In 1901 I joyfully welcomed the remarkable movement towards an understanding with Russia in the British periodical Press, and I believe that had it been more sustained on one side and better understood on the other, it might have then fully achieved its object. Unluckily other influences were more active and persistent, and only one Russian publicist, Mr. Syromiatnikoff, seconded my efforts. A more favourable opportunity arrived at last during my visit to Russia in the summer of 1905.

Before leaving London I was asked by several of my friends here to give the Russians an expression of the goodwill and sympathy of the English; and I could do it the more willingly seeing a corroboration of it in the general attitude of the British Press. Even the organs most opposed to Russian foreign policy were always sympathetic with regard to inner Russian troubles. Good news was invariably hailed with joy and bad news excited sincere regret. I did not fail to give an exact account of it to all Russian statesmen I met at St. Petersburg, and even to the Emperor Nicholas himself. His Majesty spoke of his love of peace, which remains as before in spite of the war he never desired. He mentioned the pleasant memories of his last visit to England in 1896, and his satisfaction at the belief of those Englishmen who then approached him in the sincerity of his love of peace and of his friendly feelings for England. "Whatever was said to the contrary was not true." And he authorised me to repeat those statements in Russia as in England.

Similar expressions of goodwill towards this country I heard this time from Russians of all parties who, all of them, struck me by their sincere wish to live in peaceful and friendly relations with the English. Immense material interests depend on that. England who had so long been the chief importer of manufactured articles into Russia might regain a good deal of her former place in the Russian trade; and Russia who had been chiefly supplying England with grain and raw produce in general might again advantageously compete with other nations. Another powerful link is the interest which each has in the preservation of the peace of the world. And I am convinced there is no surer means of preserving and consolidating it than a sincere friendship between our two countries. That friendship in no way conflicts with the existence of other friendships and alliances of either nation. The Anglo-Russian understanding would be the crowning of the whole edifice of international friendships and the best guarantee of its duration.

In emerging from her dire ordeal, Russia will feel grateful towards those who have shown sympathy with her, and she will be powerful enough to give value to her gratitude.

DISCUSSION

SIR THOMAS BARCLAY SAID :

That the paper suggested remarkable resemblances between the Russian and the French Revolutions. This must have struck any one who has read Taine's "Origines." There was in France a weak sovereign, a frivolous aristocracy, and actual material want among the common people. There were exactly the same circumstances existing in Russia. The Slav political ideal was not apparent as were the French, Italian, and Spanish ideals. Among the Latin races Liberalism tended towards a republic, but in the north Liberalism was standing by monarchy. In the north a great liberal nation had just expressed its option by choosing a monarchy in preference to a republic. There was very little doubt that if such an option had to be exercised by any Germanic nation it would also choose in favour of monarchy. But the Slavonic political ideal no one knew about. There were only the mixed Slavonic nations of the Balkan peninsula to judge by, and these were hardly a criterion. In following the paper he had felt that the Slavonic Liberalism was largely saturated with the monarchical ideal. From a sociological point of view the paper had been most suggestive. There was a book to which he should like to call attention, *viz.*, Lange's "Arbeiterfrage," by the author of the great History of Materialism. It was, in his opinion, far superior to anything else Lange had written, or to anything else known to him on the Labour question. In that book Lange set forth the idea that when autocracy relaxes its hold freedom asserts itself, just as the bottled-up feelings of individuals burst forth when the restraint is taken off. This was very much like the condition in Russia. Autocracy had relaxed its hold, and the whole Russian people, so quiet and decent in their usual manifestations, had burst forth into demonstrations as if they were not men of the north, but of the south. Who could but sympathise with them; freedom in every form was good. Perhaps the experiences of the French would prove of some benefit to the reformers.

THE CHAIRMAN SAID :

That the reader of the paper had very wisely not attempted to answer the question of what would be the future development of the great Russian Empire. It would be rash for anyone who had not lived in Russia, and who had not the necessary knowledge of the Russian situation to venture on any opinion.

He thought it might be said that at no time had there been in England any other feeling but that of a desire to be on amicable terms with the great Russian Empire, and to try and discover a means which would put an end to that distrust which the lecturer had so well described and which was so dangerous between two nations. He did not believe that the individual Russian and the individual Englishman were animated by any other feelings than those of mutual regard. It was a general wish that sooner, rather than later, Russia would emerge from this great crisis with institutions such as would secure to it peace and order. Reformers must take into account the present development of the country. That enormous empire was composed of various races, with various degrees of civilisation in various parts, and this seemed to exclude any centralisation. Decentralisation would secure to each of the component parts of the empire the administration suited to its requirements.



PROBLEM OF THE UNEMPLOYED

THE PROBLEM OF THE UNEMPLOYED.

Report of Conference held by the Sociological Society, at the School of Economics and Political Science (University of London), Clare Market, W.C., on April 4th, 1906, Sir EDWARD BRABROOK in the Chair. The discussion was opened with the following contribution

By MR. W. H. BEVERIDGE,
Stowell Civil Law Fellow in the University of Oxford.

I.—THE PROBLEM STATED.

There is no ground for supposing that the unemployed problem is directly connected with any excess of inhabitants, or indicates that the limits of possible population in the United Kingdom are being reached or even approached.

First, the existing distress may be paralleled in all essential particulars by the events of 1893-5, 1885-6, 1879, 1868, and earlier periods, at which the population was far smaller than it is at present.

Second, of the three agents of production, land, capital, and working population, the supply of the second is increasing far more rapidly than that of the third; the rate of loan interest falls and wages rise. The land of the country cannot increase absolutely, but as an agent of production is none the less increasing relatively to the needs of the population which is able to support itself upon smaller and smaller areas. The country is emptying itself into the towns.

Third, production per head of the population shows no sign of that decrease which should be found if over-population were setting in. The consumption of raw materials in all principal manufactures appears to be increasing steadily in relation to the population.

Fourth, the most eminent recent economic writers regard over-population as a danger postponed to a very remote future by modern improvements in the organisation of production.

On the other hand, the unemployed problem is a reality. It is not a question of accidents, such as the failure of particular firms, or of personal character alone, *i.e.*, of complete unwillingness or unfitness for work. It is, in part at least, an industrial problem.

This is proved first by the documentary and other evidence accumulated in the administration of the Mansion House Fund 1903-4 and the London Unemployed Fund 1904-5, showing that considerable numbers of men, individually certified by their employers to have been competent workmen in the near past, were unable for long periods in the last three years to obtain employment. A fair proportion of these and of many other men in whose case no such employer's certificate was obtained, worked willingly and for many weeks in succession at unfamiliar work under unattractive conditions.

A second line of proof is best put in the form of an analysis of the industrial and personal elements in the problem. In so far as this analysis, put forward in the first instance to explain the experiences of dealing with thousands of individual unemployed applicants, rests also upon certain broad unquestionable facts of industry, it is in itself a proof of the position advanced—that the unemployed problem is industrial and not merely personal in character. The industrial causes of distress through want of employment may be grouped under three heads.

The first group includes decay, changes of process or organisation, and changes of the locality, of particular industries or occupations. The leading type of a decaying industry is agriculture, where, however, the effects on employment are masked by migration to the towns. The introduction of labour-saving machinery, as in the boot trade, or of labour-saving organisation, as at the London Docks since 1891-2, illustrate "changes of process or organisation." The removal of the ship-building centre of the country from London to the North typifies "change of locality." In all these cases, considerable numbers of men do, or may, lose altogether their places in industry and perhaps the advantages of hard-won special skill, and may lack both the youth and the knowledge to enable them to find their way into new occupations. Such misfortunes are practically independent of individual character; indeed, the more continuously a man has been with one employer or in one trade the less able is he to find other openings.

In the second place, the whole labour market is subject to regular movements of expansion and contraction, rendering it quite impossible for men to obtain work this month or this year who found it quite possible to do so in the previous month or year, and who will find themselves again in demand next month or next year. The best index to these movements is the "unemployed percentage," published monthly in the *Labour Gazette*, showing first, in many individual trades, independent alternations of slackness and briskness from month to month of every year, and second, a cyclical

movement affecting nearly all occupations simultaneously though in varying degrees, and making one year, compared as a whole with preceding or succeeding years, a year of slack or depressed employment. This general trade cycle, in which periods of depression have succeeded one another regularly at intervals of seven to twelve years—1862, 1868, 1879, 1885-6, 1893-5, 1904-5—is an industrial cause of want of employment. In modern industry forces quite beyond the control of individual employers or workmen, and irrespective of the characters of the latter, bring about the involuntary idleness during recurrent periods of depression of many who during the preceding time of prosperity had obtained good or sufficient employment. But though the phenomenon of distress through exceptional want of employment is thus at bottom an industrial one, it is none the less profoundly affected by individual or personal elements. Quite broadly, and subject, of course, to many specific exceptions, it is true to say that while in trade depression industrial forces decide that a certain number of workpeople shall be idle, personal considerations decide which individual workpeople shall be thrown out. Every employer shortening hands at slack seasons retains the better workmen and dismisses the worse.

In the third place, there is in every occupation, though to a far higher degree in some than in others, a constant margin of unemployment, representing on the one hand the leakage of time lost between one job and another, and on the other hand the reserve of labour necessary to meet sudden variations in demand. Every trade union has always a certain number of unemployed; the general percentage of unemployed in all unions never falls below about two even at the busiest times. This phenomenon appears in an acute form in those occupations, such as building or waterside labour at docks and wharves, in which casual employment is the rule. The incessant and to a large extent irregular variations in the demand of individual labour bring about the existence of a standing reserve of labour, always available though only occasionally employed. This reserve may in special cases have to be kept together by some organised method of giving out work in rotation—to-day to one set, to-morrow to another set of the full numbers required. In general no such deliberate action on the part of employers is required; the reserve is kept in attendance simply by the attraction of the daily chances of employment always offering in the districts where casual work is abundant. There is thus maintained by force of industrial conditions in all large towns a mass of casually employed workmen of various grades, of whom the most significant are the casual labourers. Often described as "the chronic unemployed," and always ready to swamp by their mere numbers any special relief scheme, these men are really chronically under-employed. They form a reserve rather than a surplus of labour. Here too, though the problem is at bottom industrial, for it is casual employment that

makes possible the casual labourer, considerations of personal character are all-important. In the first place, it is largely the failures of other occupations who drift to casual employment, and in any one occupation it is always the weaker physically or morally who form the fringe of casual employees at the bottom. In the second case, those who, from whatever cause, come to be casual labourers, are almost inevitably demoralised by their circumstances. Irregular work and earnings make for irregular habits; conditions of employment in which a man stands to gain or lose so little by his good or bad behaviour make for irresponsibility, laziness, insubordination. It is no wonder that committees for the relief of the unemployed, if they make any investigation at all or can apply a really stringent test of work, are apt to come to the conclusion that the bulk of the unemployed are unemployable. Yet it is essential to maintain the distinction between those who, however irregularly employed, are yet members, though inferior members, of the industrial army and those who are mere parasites, incapable or undesirous of performing any useful service whatever. And it is equally important to remember that degradation of character is often directly traceable, not to original sin, but to industrial conditions, so that by altering the conditions of employment it is possible to check, in part at least, the supply of "unemployables."

II.—PRINCIPLES OF NATIONAL POLICY.

In the problem thus outlined the community is vitally interested. It should be its object, other things being equal, to reduce to a minimum the involuntary idleness which means first and directly a present waste of productive power; second and indirectly, a deprivation of human material and destruction of productive power for the future by the demoralisation attendant on distress.

It is, however, not desirable that the interest of the community in diminishing involuntary idleness should find expression in a public guarantee of work to all willing to accept it.

First, the state cannot guarantee to every man work which shall be valuable to the community as producing more than the cost of production. The value of the work done depends upon matters some of which are beyond the control of the state, *e.g.*, the competence and industry of the workman. The guarantee of work, if it is to make involuntary idleness impossible, becomes a guarantee of relief work—ruinously and increasingly costly to the community.

Second, the unemployed problem involves personal as well as industrial elements. To guarantee work on honourable conditions is to demoralise the people by making the lot of the less efficient, less steady, less industrious man, who is the first to lose his employment, as pleasant as

that of his more efficient or steady or industrious fellow who retains his employment.

Third, the state guarantee of work pledges the community as a whole to accept all up to any number who are born into it and to find room for them as citizens. Ignorance as to probable or possible course of population in the future makes this a pledge given absolutely in the dark. The interest of the state is not to make room for an indefinite number of citizens, but to see that all the citizens it admits are healthy and happy.

This gives the clue to the general principle of state policy in the matter of the unemployed. The ideal should not be an industrial system arranged with a view of finding room in it for everyone who desired to enter, but an industrial system in which everyone who did find a place at all should obtain average earnings, at least up to the standard of healthy subsistence. The greatest interest of a nation lies in having all its citizens efficient, healthy and happy, not in having forty rather than thirty million inhabitants. The actual numbers must in practice be left to the operation of natural laws. The acceptance of this ideal of minimum average earnings, not merely at a minimum nominal rate, does not involve acceptance of any particular method of attaining the ideal. It marks merely the distant goal of national policy. The line between independence and dependence, between the efficient and the unemployable, has to be made clearer and broader. Every place in free industry, carrying with it the rights of citizenship—civil liberty, political power, fatherhood, conduct of one's own life and government of a family—should be, so to speak, a "whole" place involving substantially full employment and average earnings up to a definite minimum. Those men who through general defects are unable to fill such a "whole" place in industry, are to be recognised as "unemployable." They must become the acknowledged dependents of the state, removed from free industry and maintained adequately in public institutions, but with the complete and permanent loss of all citizen rights—including not only the franchise but civil freedom and fatherhood. To those, moreover, if any, who may be born personally efficient, but in excess of the number for whom the country can provide, a clear choice will be offered: loss of independence by entering a public institution, emigration, or immediate starvation. The slow starvation of the casual labourer, like that of the "sweated" worker, must become impossible.

III.—PRACTICAL MEASURES.

From the consideration of general principles a return must be made to the practical questions raised by the unemployed problem. If the analysis given in Part I. be accepted, it becomes clear at once that the provision of temporary relief, either in work or in money, can play but an insignificant part in any solution of the problem.

PERMANENT LOSS OF OCCUPATION.

For the men displaced, often late in life, by permanent alterations in single trades temporary relief work is useless. It simply makes starvation slow instead of rapid. The primary need of these men is to be directed to fresh permanent positions in industry. For this purpose an organised system of labour exchanges is essential. It is a secondary question how far the guidance given by labour exchanges would need to be or might usefully be supplemented in other ways: by assisting emigration; by special training in some cases for new occupations on the land or elsewhere; by modification of the general rules of poor relief in favour of these soldiers of industry compulsorily relieved before their time, but perhaps too old to find independence in new positions.

The mere provision of labour exchanges will certainly prove inadequate unless wide and effective adhesion can be secured for the principle that so far as possible those places in industry which old men can fill as well as young men should be reserved for them. In any large business, e.g., a railway company, there are many positions whose duties can be perfectly well performed by old men, and which are in fact reserved for those who have grown old in the service of the company. The national system of production as a whole may similarly be regarded as including on the one hand a number of places which can only be filled by young men, on the other hand places which require no more special vigour than is to be found in men of forty-five to sixty. In the absence of any organisation for directing older men to the latter, they may very probably be filled by younger men. This represents a distinct economic loss through the enforced idleness of the older men who cannot find new openings or learn new trades. The younger man, if forced to it, can and will do this so long as the country remains not over-populated; so long that is as, apart from periodic depression, the growing population is automatically absorbed in a growing industrial system.

TEMPORARY FLUCTUATION OF TRADE.

For the second branch of the unemployed problem, the problem of recurrent trade depression, the most complete remedy would naturally be to steady the whole course of industry and in some way to prevent the cyclical fluctuations of employment. To this end organised study of the causes of this hitherto unexplained phenomenon, common so far as can be seen to nearly all countries, is imperatively needed.

It may be suggested here that cyclical fluctuation of employment is an inevitable incident of modern industry. Production on a large scale and by means of machinery involves production for an *anticipated* demand; the extent of anticipation being greatest on the part of those who as manufacturers of machinery and the instruments of production are furthest

removed from the ultimate consumer. Competitive production means the effort of two parties to satisfy the *same* anticipated demand; collectively the competitors must overshoot the demand. Production by competing capitalists means therefore periodic over-production followed by stagnation, when the competition has been decided, and by a fresh cycle of over-production as soon as the surplus stocks have been disposed of and the demand of the growing population makes itself felt again. Whether this explanation be accepted or not, the fact of alternate expansion and contraction in trade and in the labour market cannot be doubted. Failing the discovery and abolition of its causes, involving on the view advanced the abolition either of capital or of competition, three courses may be suggested for meeting the difficulty of "exceptional distress" occasioned by cyclical depression of the labour market.

First, the state while abandoning the idea of controlling the whole of industry may use such resources as it now has, in the way of national business undertakings, to counteract the fluctuations of privately-controlled industry. It might for instance arrange that, subject to the absolute necessities of national defence, the naval ship-building programme should be arranged so as to concentrate most work taken in the clearly marked periods of depression rather than in times of brisk trade. This particular suggestion may be regarded as unpractical in view of the supreme interests involved in the navy. But the principle of the suggestion is applicable to other departments not involving other so vital interests. It is, for instance, often suggested that the state should undertake afforestation of waste lands as a paying national industry. If this were done the work of preparing fresh lands for afforestation could be arranged so as to increase at times of trade depression and to decrease at times of trade expansion. But no attempt should be made to treat this work as relief work; men who simply tried their best but could not earn their wages at it would be dismissed. All that the state would do would be to steady the market for efficient labour. The distinction between work—where the employees have to earn their wages, and even the most stringent form of relief where they have only to work as well as they can—is fundamental.

A second course is the development of thrifty provision against these periods of distress, such as is represented in the unemployed benefits of so many important trade unions. Every encouragement should be given to this. The suggestion that the state should supplement, through the organisation, the out-of-work pay given is worth considering. Such a grant should begin only after a certain number of weeks allowance had been granted wholly by the union; should, even then, be only supplementary; and should be conditioned on attendance at a technical or continuation school.

The third best course is the provision of temporary relief work designed to tide over a period of depression, and so save from permanent degradation men who have been well employed in the past, and who will

be required again when trade revives in the future. Within this narrow scope, temporary relief works are just likely to be useful—as a third best course for dealing with one section of the unemployed problem. Yet even here they are a counsel of despair, and beset with dangers. At times of trade depression, when a certain number must be discharged, it is those individuals who, though competent, are less efficient than their fellows who will be discharged; it is those who are less thrifty than their fellows who will be in distress. It would be a standing menace to the *morale* of the industrial population to make the position of those who had to resort to relief works equal to that of those who maintained their independence. On the other hand it is in practice nearly impossible for any public committee to make the relief offered by it less attractive than the ordinary life of those who apply to it, or to give to its dependents the intolerable conditions of wages, hours and accommodation, which public thoughtlessness now sanctions as “inevitable” for large sections of a free and independent proletariat. Not till the problem of exceptional distress through trade depression has been disengaged from the problems of the sweated worker, the chronically underemployed casual labourer, and the vicious or diseased “unemployable,” will a really scientific administration of relief works become possible.

CASUAL EMPLOYMENT.

For the chronic underemployment of the casual labourer which is produced by the third group of causes, the provision of other work by the community, whether temporary and limited or permanent and unlimited, is no remedy whatever. At the end of temporary relief work the casual labourers assisted simply return to semi-starvation. The permanent removal to other work of all the dock labourers in London would leave an unsatisfied demand for casual labourers, which by drawing men from the country and from the failures of every other occupation, would in a year or two restore the previous conditions. The only radical treatment for this branch of the unemployed problem consists of a reform of the conditions and method of employment in the industry itself; a process of “decasualisation” such as has been very largely carried out without economic loss by the London and India Docks Company; such as might be extended by the medium of labour exchanges, to affect the work of groups of independent employers. This suggestion indeed is only the application to a special problem of perhaps the most important industrial reform already within the range of practical politics. This is the organisation of the search for work by means of labour exchanges. The unorganised search, typical of all the lower grades of industry, where there are no trade union labour registries, represents enormous economic waste and leakage of labour power. Provision of

labour exchanges would increase industrial efficiency by relieving the workman, whose primary duty is to work, from the secondary function thrust upon him by developing industrial conditions, of also bringing his labour to market.

IV.—SUMMARY.

The unemployed problem is not due to over-population of the country as a whole. It is an industrial problem, in so far as (a) permanent changes in single trades, (b) temporary fluctuations in single trades or industry as a whole, and (c) casual employment, involve involuntary idleness. It is a problem of personal character, in so far as (a) considerations of individual character affect the incidence even of purely industrial movements, and (b) physical, moral or mental deficiency may make individuals incapable of maintaining themselves completely. The state is therefore at once bound to deal with the problem and bound not to deal with it merely by assisting the distressed individual whose position is but a symptom of complicated industrial and personal causes. Organisation, not relief, is the object.

The practical reforms needed are :

1. The establishment of labour exchanges
 - (a) to direct to new positions those who fall out of their chosen occupations ;
 - (b) to substitute regular for casual labour ;
 - (c) generally to diminish leakage of labour and irregularity of earning by organising the search for work.
2. An effort to steady the labour market and to counteract temporary fluctuations by a wise disposition of public works performed under business conditions and (preferably) through private contractors.
3. The careful use of emigration, or home colonisation, preceded, if thought necessary, by training on a free farm colony such as Hollesley Bay, in order to dispose of the temporary surplus of labour that would be produced by the organisation of the labour market recommended in 1 (b) and (c).
4. The establishment of detention colonies as recommended in the Report of the Vagrancy Committee for those who prove unemployable.

MR. J. A. HOBSON SAID :

Considering that the reader of the paper has been immersed in the practical details of administration in connection with unemployment, he seems to me to show a very commendable understanding of the problem up to a certain point. He has carried his analysis to the beginning of an understanding of the vitals of this issue. He has shown us that questions of personal character play a comparatively small part, a trivial part, in determining the amount of employment, although they play a very important part in determining at any time the particular individual who shall represent that employment. He has also shown us that there are a number of causes of leakage of employment. I need not dwell upon that portion of his analysis; but underneath that he admitted that there were what he called industrial causes. Now the importance of these industrial causes is so much greater than the importance of all the added causes that they must be taken to contain the gist of this problem of the unemployed. It is the difference between the amount of unemployment in the best year and the amount of unemployment in the worst year we have to consider. Now in the best year all these questions of personal efficiency, all these minor leakages, are operative, so that the difference between 1892 and 1899 is the difference between almost 10 per cent. of unemployment, and less than 2 per cent. That is the issue we have to consider, that is the industrial issue. This is not, I think, a matter of mal-adjustment in the application of capital, nor can anyone, I think, who goes into the subject closely, accept the brief and tentative explanation which has been given by the reader of the paper of the enormous waste of productive power in the community. For, I may remind you, as the reader of the paper has reminded you, that the unemployed problem is not a labour problem merely, it is a problem of the simultaneous unemployment of all the factors of production; for besides labour a large amount of the concrete capital is either unemployed or underemployed. You have, therefore, for periods of time all the factors of production, and yet these factors cannot work together. Why cannot they work together and produce wealth? The first answer, at any rate, is that the wealth which technically they can produce cannot get consumed; that is to say, you have a tendency to produce, through the various processes of the productive machinery, at a more rapid pace than those final commodities are taken out at the end of the machine. You have a condition—you may call it either a condition or tendency, but it is a very real thing—you have an excessive power of production, and that excessive power is excessive not occasionally, but normally. It is only not excessive at certain periods of booming trade. At all other periods you have more capital and more labour, not of this or that sort, but more capital and labour in general than are able to find full employment. The amount of unemployment is concealed by the fact that some of it is not

noted at all. The actual waste of productive power is far greater than 10 per cent., but that is the actual issue with which we are confronted. You have got operating or seeking to operate more capital and more labour than are required to supply the rate of consumption which is going on in the community. What we, therefore, must seek for, if we are to find a remedy, is how to make the rate of consumption increase automatically to meet every increase in the power of production. Until we have that automatic adjustment in fairly satisfactory working order we shall not have dealt vitally with unemployment. Now the methods which are proposed do not really touch the fundamental issue. I may say in passing that those who favour state works or the employment of public monies in any form have to confront quite clearly this economic issue. Supposing that a municipality takes £1,000 from its ratepayers' pockets in order to apply it to the employment of unemployed persons, what it appears to be doing in the first instance is to be taking away from the employment in those trades in which the ratepayers would have spent that £1,000 if it had been left in their pockets, to take away that employment and to fill in the employment of the unemployed to whom it will be applied. You will not in that way, according to the orthodox accepted analysis of the subject, be decreasing the aggregate of the unemployed at all. You have clearly to face that question, and ask if that is the final analysis. I don't myself think it is; but the difficulties of this subject, and the necessary limits of time which are placed upon me, are such that I cannot profess to enter into a clear discussion of a subject upon which I have been engaged for more than twenty years. But I may bring you back to this point and try to focus your minds upon it if I can, that we have got to show how any kind of remedies that are proposed are going to increase the aggregate of consumption in the community without correspondingly increasing the aggregate of production, because if you make people more efficient and they produce more without at the same time increasing to a larger extent the proportion of their consumption, instead of abating or curing this evil you would increase it, the evil being, as I suggest, a matter of mal-adjustment between the rate of possible production and the rate of actual consumption. How you can deal with this, of course, as I say, is too large a question for me to enter into, but I will simply suggest to you the two lines of modern progressive policy which I hold to be sound in that they satisfy this test of raising the current rate of consumption. A labour organisation which increases the proportion of the general income that goes to the wage-earners and diminishes the proportion which goes in rent and profits, will thereby increase that proportion of the income which will be more largely expended in demanding commodities; thus will be brought about a rise of the general standard of consumption. That is one method, the method of the labour movement. The other method is one by which the state takes for

public use, and expends in the public advantage, in raising public current consumption, an increasing proportion of the income of the community, taking that income away from the unearned incomes of private individuals in which it largely rests at present, claiming it as the earned income of the community and spending it for such public benefit.

MR. H. RIDER HAGGARD SAID:

The reader of the paper has alluded several times to matters connected with the land; I think that he might have carried that branch of his argument somewhat further. It seems to me that many of these problems of unemployment are intimately connected with the question of the land. You are aware that during the last few decades there has been an extraordinary flow from the land to the cities. Into the causes of that flow I cannot pretend to enter fully; but we may take it briefly that they have their roots in the lack of prospects on the land, in the facilities of transit, in the spread of knowledge and education, and further, in the love of crowds and pleasure which can be satisfied only in the towns. Whatever the causes, the result is that at the present moment, I believe, less than one-seventh of our population is living on the land of Britain, whereas the other six-sevenths are herded together in the towns, where most of them are in a condition of poverty, and many of them are in a condition of misery. Moreover, by this herding together in the towns, they help to produce that unemployment which we so much deplore. The young, the strong, the healthy, the unexhausted, the ambitious, pour to the cities and there at once enter into keen competition with those who are ageing or exhausted. The result is that the former drive the latter down, and hold their places for awhile, until a new wave following after them drives them into the same gulf. Therefore it is clear that one of the causes of this distressing problem is the exodus from the land. If that is one of the great causes, may not also that same land be one of the great cures? The question is how the cure, or let us call it the palliative, is to be set working? There are two courses. You may, if you can, render available the land of Britain, so that persons can be retained upon it, and those persons who have left it can be moved back to it—that is the ideal course. But there are great difficulties in the way. The land here does not pay very well; it is terribly burdened with taxes, so that the small holder will even under good conditions have hard work to make his livelihood. There remains another alternative, and that is emigration. I investigated this matter at some length last year as a Commissioner of the Government, and my conclusions were very favourable to emigration for certain classes of

the unemployed. In Canada, you have beautiful land, quite untrammelled, and you can have it as a gift, for the Government of Canada offered to this Government through me 240,000 acres of it. There is no doubt that people taken from this country and properly directed, instructed, and cared for, can, if moved to that land, succeed—can be lifted into a totally different atmosphere. Therefore do not let us despise the remedy, or the palliative, of emigration. But at the same time we must remember that in this country there is a great prejudice against it. I do not advocate either the one method or the other entirely and alone; I would like to see home-land settlement supplemented by colonial settlement, which I believe is the right way out of the difficulty. But still the prejudice does exist, and I rather doubt whether at present any effective schemes of emigration can be put into working. That being so, we must return, if the land is a remedy, as I maintain, to the home-land. The burden must be lessened and every possible freedom must be given. If the question of home settlement is really faced with a determination to solve it, I for one believe that very soon you will find, if not a cure, at any rate a great palliative for this problem of unemployment which now oppresses England.

MR. HARVEY SAID :

The chief constructive proposal in the paper was with reference to labour exchanges. I was interested in the suggestion made about the labour exchange, so that duties that can be performed by old men may be scheduled and in that way you might to some extent re-arrange industry and meet the problem of the disposal of old men. But when one turns from the constructive proposal and considers the principles underlying it, one finds a great deal of vague and shadowy thought. For example, we are told that the unemployed problem is not due to over-population of the country as a whole; and when we turn from that categorical statement to what is called the second part of the paper, we find that fundamentally underlying this, which is the forecast of the future, is the scare of over-population. Again, it seems that our construction of schemes must allow for a kind of aristocracy of labour, a favoured set of individuals who will have good wages and have no civil disabilities; and that along with them we must put as a permanent condition of our state, a certain number of others, not simply vagrants, not simply the unemployable—as evidently the opener presupposes that a great number of these people are able to work—who are to be relegated to loss of independence by entering public institutions or by emigration or indeed by starvation.

Why is it necessary to assume that the state cannot guarantee to every man work which shall be valuable to the community as producing

more than the cost of production? If value or prices depend upon the estimate the community places upon goods, it is obvious the state cannot guarantee work which shall be valuable to the community. Again, under "practical measures," where we are told, "first, the state while abandoning the idea of controlling the whole of industry,"—why is it necessary to assume that the state must abandon the idea of controlling the whole of industry? I was interested in Mr. Hobson's very clear contribution to the discussion. It seems to me obvious that this is not entirely a labour question, and although I differ from him to some extent I agree that maladjustment of capital has some influence on this unemployed problem. I do not agree that any value can be attached to emigration as a solution to the question. To me, the whole matter appears to be one of state control of the whole course of industry, and until we are prepared to face that question I do not think that any consideration of the unemployed problem will give us any really final or valuable results.

MR. JOSEPH FELS SAID :

I do not think that the opener has sufficiently analysed the causes of unemployment; the chief of which now, as it was fifty years ago, is monopoly of land and all those things that go with land. It seems to me that proposals of increased taxation of owners of land would not solve the question at all, as the tenant would still pay the extra tax in the shape of rent. I do not believe in the private ownership of land under any circumstances, and that, to my mind, is the absolute cause of poverty. The United States is developing the same set of conditions. I venture to say that I could get 25,000 men in New York City for 4s. a day, which is equal in purchasing power to about 1s. 6d. in England. The same thing holds good in California, where I understand there are 5,000 out of a population of 200,000 out of work. The whole solution of the case is the wiping out of the private ownership of land and all its special privileges, and the ownership by the government of all natural monopolies. England has to-day twenty million acres of unused land. There is enough land in Essex which, if thoroughly cultivated, would perhaps support half the population of London. Emigration only means that you squeeze the best blood out of your own country, into another—Canada or South Africa or the United States—and the unpopularity of emigration in this country is most justifiable. The conditions in Canada are little better than they are here. Toronto, the second largest city in Canada, is shorter of housing conditions than London; it is practically impossible for a man who makes only £2 a week to get a house to live in.

MR. A. L. BOWLEY SAID:

I want first of all to say a word or two of appreciation as regards the paper. Generally, people spend too much time in saying what an excellent paper it is, but as it happens all the speakers have said the paper is not adequate; I think the paper is an excellent one—the best paper I have heard of this kind, and I think it goes very nearly as far towards the root of the matter as one can get in a short half hour. Secondly, I want to return to a more ordinary tale; I want a great deal more information about the unemployed before attempting to analyse remedies. Nobody has yet been able to give any reasonable statement of the number of persons unemployed in London. We have many categories, many careful analyses of the kinds of men, and what should be done with them, but we have none of their numbers. When it was asked in the House of Commons a month ago as to how many persons there were unemployed, the Board of Trade returned the numbers already published in the *Labour Gazette*, which we know all about. Nobody knows what is the factor by which you multiply them. There are very diverse estimates. I think then that before we finish our discussion, or proceed to organise remedies, we must have some information on the subject; we must have something about the numbers we have to deal with. Again, both the gentlemen who recommend us to go back to the land have quite failed to show that a person on the land is at all more regularly employed than a person in the town, and therefore I cannot see that their contribution to the analysis helps us at all. I should very much like to be able to follow Mr. Hobson in the analysis that he began, but I cannot in the twenty minutes which have elapsed since he spoke follow his investigations for twenty years. I do think that if we want to get clearness of thought on this subject it is in the direction Mr. Hobson outlined that we must proceed. Accepting for the moment that the most important cause is the commercial, represented by an increase from 2 per cent. to 10 per cent. of the unemployed, undoubtedly the thing we ought to find out is the possibility of filling in the gap in bad years. I have not had time to think out his points, but it appears to me that if you can devise any way of regularising consumption, if you can transfer any consumption from the fat years to the lean years, then you will have done something to regulate employment. And it appears to me that the points suggested by Mr. Beveridge may possibly have that effect without any rebate, but on that point I am not sure; I think it is a thing more worth thinking out than most of the palliatives that have been suggested. Mr. Hobson said that the commercial cycle was the most important; but I am not quite certain that it is socially, for of those persons who are returned by the Trades Unions in the bad years very many are insured, and a

very great number never trouble anybody outside their own Unions, and it rather seems to me they are working harder in some years. If you subtract these, the number is not so great as was indicated, and as a social question the other clauses in Mr. Beveridge's analysis seem to me very nearly equally important, but where both cases are so important it is perhaps waste of words to discriminate. The other question, and the main one, I should like to touch on very briefly, is the question of the choice of employment. Who are the people who are now unemployed in East London and elsewhere? I do not know how many there are, but there are some no doubt. How is it they are in the particular trades where unemployment is chronic? How is it that the building trades increased so vastly between 1881 and 1891? Why do people become builders, a trade which always has three or four months in the year when there is no work, and they also lose many hours every week in moving from work to work, and which is hit almost as hard as any in a year of acute depression? How is it people get into these trades? Is it not the fact that the people who are out of work are unemployed to a great extent because they have never learnt anything which is useful to the community? And although that does not touch the question of inflation, it does undoubtedly touch their personal ability to obtain wages. I think one of the main things that will have to be done to avoid the kind of unemployableness that is said to exist in the East End of London, and in Leeds, and in other towns, is that by some means or other the lads when they leave school should be directed to that employment which is worth most to the community, and with a wise choice avoid those trades where unemployment is known to be chronic.

MR. MARK MAJOR SAID :

To deal effectively with this question we must have some scheme which will automatically cut off the supply of unemployment. In an uncivilised country every man has naturally a certain amount of work to do—the work of providing himself and his family with his own food. In a civilised country there are not the aids available by which every man can automatically obtain natural work. Therefore, what we have to aim at is to put it in the power of our people, if they are not able to earn wages that are satisfactory to themselves, to be able to return to their natural work of providing themselves and their families with their own food. To-day that is impossible because people, through lack of capital, cannot purchase land, or rent it under equitable conditions, and therefore it is impossible for them to return to the land to exercise that natural right. The solution of this problem would lead to the industrial prosperity of the country as well as to agricultural prosperity,

as the two are bound up together. It would produce that satisfactory relationship between capital and labour which we want, because if labour had the opportunity of growing its own food when it found wages inadequate, capital would have to give automatically a fair share of the proceeds of industry to labour, whereas labour would have to conciliate capital, because if capital were withdrawn it would no longer be able to earn its living so easily in industrial occupations, and would have to return to growing its own food, which would be more arduous.

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FROM MR. H. R. MAYNARD:

Mr. Beveridge's analysis of the problem is confirmed by the evidence of my own observation, and I agree in the main both with his ultimate ideal and with his practical proposals. I do not think, however, that either in sections II. or III. he has dealt quite adequately with the most difficult element in the whole problem—the question of the “unemployed” casual labourer. Mr. Beveridge seems to me to exaggerate the extent to which the casual labourer would in practice be eliminated from the industrial system even under the ideal organisation described in section II., and he omits in this section the element of cyclical fluctuation. If this is so, the problem of the unemployed casual labourer will continue to require more attention than Mr. Beveridge gives it in section III.

The automatic classification which is to divide all the population into “whole placers” and “unemployables,” would inevitably be a gradual process, both in the history of industry and in the lives of individuals. The decasualisation of employment would never be complete, if only because the ups and downs of different industries would never be wholly complementary. In practice there would always be a margin of “struggle for employability,” and consequently a fringe of casual labour, as yet unclassified. This margin would progressively decrease as the goal was approached, but there would always remain a perceptible, though shifting, minimum.

In times of depression, moreover, this margin of casual labour would expand. The depression would in some industries take the form of increased casualisation, while at the same time the numbers competing for casual jobs would be increased by an influx of men, normally almost, if not quite “whole placers,” struggling to maintain independence at the cost of underemployment, and to a large extent ousting the members of the normal fringe. A period of depression would, therefore, either force down a number of these marginal cases into the “unemployable” category, or leave the problem of the “unemployed” casual labourer still to be faced.

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Now the proposals contained in section III. do not appear adequately to meet this problem. The effect of the government works, described under the first head, put in hand in times of depression under ordinary contract conditions, would be largely confined to the special trades concerned in the particular forms of employment, and would leave untouched the bulk of the London unemployed, as we know them to-day, and as, although in diminished numbers, they would probably persist. The development of organised thrifty provision would be beyond the reach of a great part of this border-line class. The problem of suitable relief works for the casual and semi-casual labourers would therefore still remain. The difficulties thus abandoned as "nearly impossible" are therefore just the ones which it is most important to meet, not only under present circumstances and during the transition to the ideal of section II., but also in times of exceptional depression, after the attainment of that ideal.

The process of experiment in the direction of the discovery of conditions of relief work, adequate to the preservation of the efficiency of such men, but yet not desirable enough to induce them to abandon the struggle for independent employability, is not therefore rendered obsolete by Mr. Beveridge's proposals. Such employment cannot be safeguarded by the ordinary employers' demand for competence, since, *ex hypothesi*, those who could satisfy that demand upon the limited varieties of employment at the disposal of either the government or the relief committees, would be employed on the government works.

To leave the others, perhaps equally suitable for assistance, but yet not belonging to trades in which work can be publicly provided without producing the phenomenon known as "national workshops," to a temporary sojourn in public institutions designed for the hopelessly dependent, would only be to hasten and render irrevocable their descent to unemployability. Whether the "rustication" test of the temporary colony as organised by the London Committees of the last three winters is a sufficient safeguard, or whether some more strictly disciplined colony, such as might be developed out of the modified workhouse test under the control of the Guardians, is likely to prove necessary, is a question upon which one would be glad to have Mr. Beveridge's opinion.

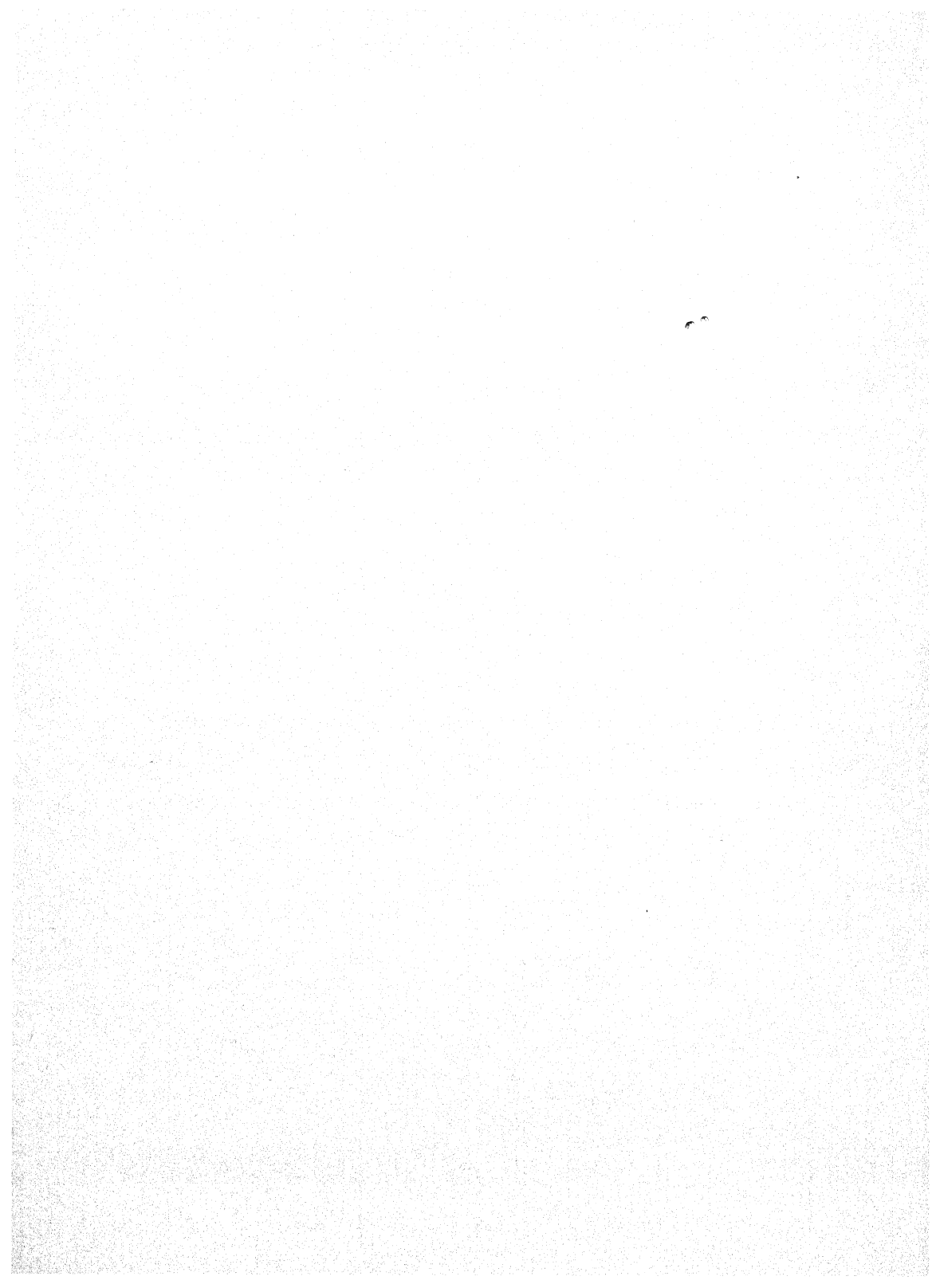
MR. BEVERIDGE SAID :

I started by saying that I did not regard this as a question of over-population, because I wanted to bar out all schemes for solving the unemployed problem which depend simply upon finding fresh openings for the present individuals. I maintain that any scheme, whether of emigration or afforestation, or shortening the hours of labour, which

merely finds fresh openings in the industrial system as now constituted, simply puts the problem ten years further on and does not solve it at all; I mean it is a problem caused by the nature of our industrial system, and from that it follows that the solution of the problem will involve the reorganisation of the industrial conditions. I would ask those who say the problem is caused by a monopoly of land how that can affect the fact that at a certain time all ship owners in the country want ships. You will find that in one year there is an enormous tonnage, and then there is a small one. This is reflected in the Trade Union figures, which also show a percentage varying from 3 per cent. of unemployed to 15 or 20 per cent. I gave a very short and tentative analysis of the causes of this temporary over-production, and the remedy to which I called attention with regard to fluctuation of employment is exactly what Mr. Bowley has described as "increasing consumption in lean years" by public works done in lean years, not done always.

I quite agree with Mr. Hobson in thinking it is an industrial problem. I know he possesses a peculiar economic theory which I am unable to follow, that there is a sort of permanent under-consumption; as a matter of fact in busy times the consumption is outrunning the possibility of production; in slack times there is an under-consumption. The thing that will solve the part of the problem which depends upon trade fluctuations is to regularise consumption, is to make the demand for labour steady, instead of making it continually fluctuate. And I think that could be done without controlling the whole of private industry if the state, having certain resources at its command, establishes an industry which shall be, as it were, lasting; which shall expand when private industry is contracting, and then contract when private industry is expanding. Mr. Bowley wants the numbers of the unemployed; but he must know that the mere number of the unemployed does not mean anything. One man is out to-day because his firm has failed; another is out because his whole industry has gone, his place has been taken by machinery; another is out because his trade is temporarily slack; another because it is usual for him to be casual. You want to classify them according to their reasons of unemployment. On that point I may say that from the results of my own experience, far more attention should be given to the question of chronic casual underemployment than to the question of trade depression. That may be accepted or not, but it is the side of the question which needs most attention now, because we are just recovering from the time of trade depression.

METHODS OF INVESTIGATION



METHODS OF INVESTIGATION.

By MRS. SIDNEY WEBB.

Address delivered before a Meeting of the Sociological Society, at the School of Economics and Political Science (University of London), Clare Market, W.C., on January 31st, 1906, Dr. E. WESTERMARCK in the Chair.

What we have to do in social science is to apply the scientific method to the facts of social life. There is only one scientific method—that used in physical science. It consists of three parts—observation, conjecture as to the cause and effect of the facts observed, and afterwards verification by renewed observation. That is the scientific method, but the application of that method is a technical matter; for instance, observations in astronomy are carried on by means of telescopes and other scientific instruments. The same is true of chemistry and biology; they proceed by purely technical methods. And so in the case of sociology, which is the science of men in combination, the application of scientific method needs the use of certain technical instruments. It is these that we have to consider.

In the first place, we have two methods in common with all other sciences—observation and experiment; then a third, the statistical. Beyond these three methods, we have two which are unique to our subject-matter, men in combination. One is the use of literature, the other is the interview. Let us discuss these five methods; three are general and two are technical to social facts. As regards

observation and experiment, some authorities who have dealt with the subject-matter of men in combination have denied that observation and experiment can be applied to the facts of social life. Sir Frederick Pollock, who has written on the history and science of politics, says that in the natural sciences the work is done, broadly speaking, on phenomena present to the senses and to instruments of manual use, but in moral science the matter is conceptual, and the instruments are largely books. That has been the general opinion in the past, but it seems to me that the attempt to limit social science to language and books is wholly ineffectual. If you should limit your methods to these two, the one subject on which you could use them would be the working constitution of the state. But even the most eminent men may go wrong through want of observation to supplement the reading of books. Mr. Bryce's description of the American Commonwealth is a remarkable book, but in one respect he went wrong, because he did not observe the facts apart from looking at the documents. He tells us that the Federal Government works entirely through committees. He says the Representative Assembly elects bi-party committees to determine the legislation, which the Cabinet Ministers afterwards carry out. He draws a most interesting picture, following Mr. Wilson's great work, of how the Federal Government is conducted by these committees. But what he did not tell is that the committees never meet—which makes a difference. I discovered while in Washington that when a matter of great importance is under consideration by a committee, the minority members withdraw and leave the majority to discuss the situation. When the deliberations are finished, the resolutions are tabled and left to the discussion of the minority. If you know anything about committee government you are aware that the whole essence of it is that the majority and minority meet together and thresh something out, and though the majority have their own way in the end, the fact that the minority are present and propose amendments may lead to the decision arrived at being essentially different from what

it would have been if the majority and minority had not met. This makes the whole difference between government in America and government in England. That illustration shows that in a hard and technical subject like constitutions, it is not safe to trust altogether to the written word; you must have personal observation also.

In the case of things in which human nature plays a part, personal observation is everything. It would be useless to read about the infant mortality of the slums without personal observation of slum conditions and influences. There is, however, one great fallacy to which the method of personal observation is open, the fallacy of the individual instance. Much of the writing of the present day describing the slums and the horrors of white slavery, or even of Chinese slavery, is vitiated by the fallacy of the individual instance. One must constantly verify his personal observation by other methods.

In the case of the other method, that of experiment, it is sometimes said that it cannot be applied to social facts. But as a matter of fact, this is always being done; for example, a railway company is constantly experimenting with rates. A very astute American railway president once told me that he kept a man, at £2,000 a year, shut up in a little room. Before him every morning were brought the different rates being imposed, and all the different tariffs on the various sections of the company's line. He watched, day by day, what happened to certain classes of commodities if the company raised the rate. Anyone who has been on the County Council is aware that it is perpetually making experiments and watching the results. Though it is impossible for us to experiment merely for the sake of experimenting, yet public administration forces the method upon us.

Now let us consider another method, the first of the two which are technical—the method of the interview. Here one supplements his own observation by that of other people. Those who are conversant with English blue books and reports of Royal Commissions and Commissions of Inquiry know that a number of people are brought together

to give evidence. They are interviewed and cross-examined. Reliance is placed almost entirely on the method of interview. There is a great danger, because dependance in that case is almost entirely upon hearsay; a witness tells what he thinks has happened. He may give a few isolated facts, but his evidence is largely hearsay. I suggest that the one great advantage of the method of the interview is not in giving facts, but information as to the source where facts can be obtained by means of documents, and those having personal knowledge, also by means of suggestions as to cause and effect which must be verified. In his great work, "Life and Labour of the People," Mr. Charles Booth based his map of poverty in London almost exclusively on the method of the interview. He wanted to discover the circumstances of each individual living in a street, so he first got permission to call up the School Board visitors, each of whom had charge of two or three streets. With his secretaries he went over each individual in each street, and got from the visitors their idea of each person's circumstances. The School Board visitors were going in and out of these houses every day. That was information obtained from personal knowledge, and roughly speaking it would not be far wrong—Jones lives in one room with a certain sized family, earns 20s. and pays 5s. rent. He got such facts as these and then verified them by means of district visitors. I remember that he also utilised the agents for Singer's sewing machines in the same way. He was getting not at the men's opinions, but at their personal knowledge. That is the most important of all the uses of the interview.

There remains the other of the technical methods—the use of documents and literature. This is a very important method, because for the past as distinct from the present it is practically the only method that can be employed. You cannot interview a man of the eighteenth century, neither can you observe the facts of that time. Now, there is an important difference between a document and literature. A document is written testimony which is unconsciously secreted by a social organisation for the purpose, not of

influencing thought, but of influencing action. Parliament does not pass statutes in order primarily to influence thought, but in order to determine conduct, hence all statutes are documents. A minute book is a document. It is not written to influence thought, or to furnish information to future historians on a subject, but primarily to guide the secretary or members in carrying out certain decisions at which the committee has arrived. And so with a wage-sheet. It is meant primarily to determine action rather than to influence thought, and that gives it peculiar value. It must be more or less precise and correct, because action is going to depend on it. Documents are, therefore, likely to be much more precise than literature; they are unconscious testimony to the truth of the fact. On the other hand, literature as found in books, newspaper reports, and pamphlets is written for the purpose of informing people what has happened. The difference between a document and literature may be seen in our parliamentary papers, the *House of Commons Journal* and *Hansard's Debates*. The *House of Commons Journal* registers the resolutions arrived at by the members; *Hansard* gives a report of the speeches made, for the purpose of informing the outside public. When a resolution is registered in the *House of Commons Journal*, it binds the House of Commons; no amount of reporting in *Hansard* would do that.

In regard to the question of first-hand and second-hand literature, I would suggest that first-hand literature is that which records the personal impression of the individual who writes about the fact he is recording. For instance: *Hansard* is first-hand literature, but a book about *Hansard*, describing these parliamentary debates, would be second-hand literature. All histories are second-hand literature, but pamphlets or newspaper reports, written by persons who actually observed the facts, are first-hand literature.

Then there is the statistical method. It is quite clear that this is necessary in nearly all observation, at any rate of present facts, to prevent falling into the fallacy of the individual instance. One may observe that in a certain slum

five babies have died in the course of the summer. That fact will not tell accurately what effect slum life has on babies unless it is verified by the statistics of infant mortality in all the slums. There may have been in this particular slum a special cause of the mortality. Professor Edgeworth said a very weighty thing when he said that "the statistical method never discovers a truth, but it often prevents an error."

I might end my discussion of the methods of investigation by suggesting that it is the qualitative methods of observation—experiment and use of documents and literature—which enables one to discover the processes of society, and it is the statistical method which enables one to check these observations, to see that they apply to a large number of instances instead of to one only.

Now, before concluding, I should like to say a few words on the validity of social science. Is it possible to so observe the processes of society as to be able to arrive at a generalisation which will prove true in the future, and so have a value beyond that of accurate record? In a sense, it seems clear that no amount of knowledge at which we are likely to arrive will enable us to predict the course of social events. We cannot foresee what will be the course of history a hundred years hence, for the reason that social facts are determined to some extent by others altogether outside the science we have in hand. Take such questions as change of climate, the influence of new inventions, or the appearance of a great man; these are facts which may radically alter the course of society, but which do not belong to our science at all. No knowledge will ever enable us to foretell those facts. But is there no other sense in which knowledge of society can be made useful? As a matter of fact we are always applying our knowledge of society to predict events, and we base our action on that prediction. Imagine what would happen if you had a statesman who was haunted by philosophic doubt, in charge of the post office just before Christmas, who would refuse to authorise the employment of additional postmen on the ground that there was

no reason to suppose that the same increase of work would occur as in former years? I suggest that we can ascertain, with sufficient certainty to base action upon it, what the conduct of the average man will be under ordinary circumstances. It is upon this kind of knowledge that the whole of successful government is based. Though it will never help us to foretell the course of history, because of other facts intervening, yet it does help us to organise our own society, because we are dealing with the average man under conditions sufficiently near to those we have observed. It must be remembered, however, that science can give only the process by which a given purpose or end may be reached. In the late discussion concerning Tariff and Free Trade it was said that a true economist must be a supporter of Free Trade or Tariff. But an economist can only tell by what process a desired result can be attained. He may be able to prove that Free Trade will give a universal cheapness of commodities, but he cannot tell whether that is a thing you want. Medical science could perhaps tell you how to kill or cure a man, but it could not tell you whether you want to kill or cure him. The matter of ends or aims has nothing to do with science, but generally falls within the field of religion.

ABSTRACT OF DISCUSSION

Attention was called to certain limitations of the methods. It was unfortunate that experiments were scarcely ever made by sociologists themselves, so this method, so far as the science was concerned merged into that of observation. Again, the interview was defective because of a bias it tended to create. The difficulty with commission evidence generally was that it was taken from individuals who had succeeded, and almost never from those who had failed. In this way, one side of the matter being reported upon was neglected. The difficulty with the statistical method was that sociological facts were collected and classified by mathematicians whose competence in the science was not above question.

Criticism was made on what had been said concerning sociological prevision. It seemed possible to foretell the course of history in its most general form, prevision being based upon a study of the past. Societies, like organisms, had certain laws of development which, if ascertained, would enable the sociologist to see in a general way the future course of history. It did not seem apparent that the appearance of a great man or an invention could alter this general course; they might quicken or retard it, but were in fact only the means by which the social order unfolded itself. With regard to experiment, there was only the vaguest analogy to experiment in the natural sciences, because of the impossibility of controlling or excluding the various factors involved. A kind of social experiment might be seen in the case of certain isolated communities, as those in the East, which stood apart from the general course of historical development.

Emphasis was given to the importance of newspaper cuttings, properly classified, as a source of sociological facts. This would ensure for future students a proper collection of evidence of the kind described by Mrs. Webb as first-hand literature.

It was asked if the methods described as peculiar to sociology were really different from those found in other sciences; for instance, the zoologist would keep in his laboratory a collection of written records describing the observations of others. Again, sociology had necessarily to deal with considerations of value connected with the emotions, in the treatment of which none of the methods mentioned would be applicable.

It was pointed out that Mrs. Webb's methods had not been quite supported by her illustrations. The railway expert and the London County Council were not making experiments of a sociological order; they were only finding means to attain certain ends, and the interest involved served to exclude them from the province of scientific investigation.

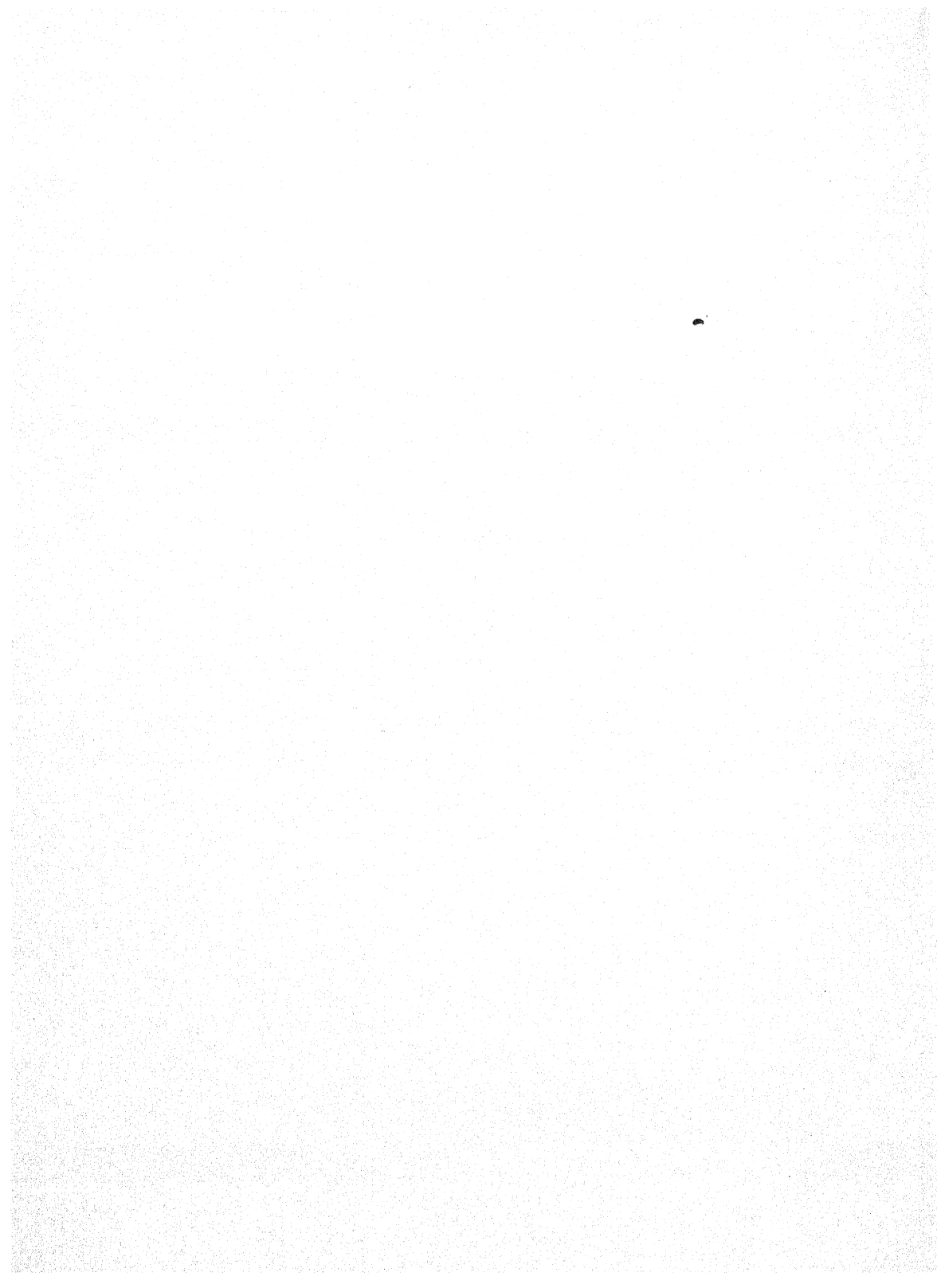
Emphasis was given to what had been said regarding the method of observation in sociological research; one of the best illustrations was to be found in the study of primitive peoples. No one could adequately understand savage life without first-hand knowledge, and it was remarkable to what an extent observation of a single primitive group would assist in the understanding of others, and of all the factors that operated in the early development of civilisation.

MRS. WEBB'S REPLY.

She agreed with the criticism of the interview; it failed not so much because successful people were consulted, as because individuals were chosen on account of their ability to express themselves rather than on account of their experience. She also agreed with what had been said regarding the statistician; he should never be allowed to collect his own data; he did not understand that the work of the sociologist was delicate observation of processes, each of which was slightly different from the rest. This lack of critical faculty could be made good by the statistician co-ordinating his work with that of a qualitative observer. She thought that as a means of investigation newspapers were of the utmost importance. A recent work in which she had been engaged had demonstrated the need of properly

collecting and preserving newspaper material. As regarded the records used in other sciences, she considered them of the character of first-hand literature. It was impossible in the physical and biological sciences to have documents. With regard to experiment, she had not made herself entirely clear; there was no experiment in sociology comparable to that in physical science, but still, when those engaged in public administration determined a course of action on the basis of previous tentative courses, there was to be found experiment of a kind. She still maintained that the question of ends and aims did not enter into the study of social processes, and that these latter furnished the subject-matter of social science.

**SO-CALLED
SCIENCE OF SOCIOLOGY**



THE SO-CALLED SCIENCE OF SOCIOLOGY.

By H. G. WELLS.

Read before a Meeting of the Sociological Society, at the School of Economics and Political Science (University of London), Clare Market, W.C., on February 26th, 1906, Professor GEDDES in the Chair.

I have come to place certain views before you that affect one's whole attitude to sociological and economic questions. It has long been generally recognised that there are two quite divergent ways of attacking such questions, one that is called scientific and one that is not, and I claim no particular virtue in the recognition of that; but I do claim a certain freshness in my analysis of this difference, and it is to that analysis that your attention is now called. When I claim freshness I do not make, you understand, any claim to original discovery. What I have to say, and have been saying for some time, is also more or less, and with certain differences, to be found in the thought of Professor Bosanquet, for example, in Alfred Sidgwick's "Use of Words in Reasoning," in Sigwart's "Logic," in contemporary American metaphysical speculation. I am only one incidental voice speaking in a general movement of thought. I presented my particular statement of my view of this movement to the Oxford Philosophical Society a year or so ago, in a paper called "The Scepticism of the Instrument," which is to be found reprinted at the end of my book, "A Modern

Utopia," and this afternoon I am putting the case before you for your discussion in direct reference to sociological method and pretension. My trend of thought leads me to deny that sociology is a science, or only a science in the same loose sense that modern history is a science, and to throw doubt upon the value of sociology that follows too closely what is called the scientific method.

The drift of my argument is to dispute not only that sociology is a science, but also to deny that Herbert Spencer and Comte are to be exalted as the founders of a new and fruitful system of human enquiry. I find myself forced to depreciate these modern idols, and to reinstate the Greek social philosophers in their vacant niches, to ask you rather to go to Plato for the proper method, the proper way of thinking sociologically.

We certainly owe the word Sociology to Comte, a man of exceptionally methodical quality. I hold he developed the word logically from an arbitrary assumption that the whole universe of being was reducible to measurable and commensurable and exact and consistent expressions.

In a very obvious way, sociology seemed to Comte to crown the edifice of the sciences; it was to be to the statesman what pathology and physiology were to the doctor; and one gathers that, for the most part, he regarded it as an intellectual procedure in no way differing from physics. His classification of the sciences shows pretty clearly that he thought of them all as exact logical systematisations of fact arising out of each other in a synthetic order, each lower one containing the elements of a lucid explanation of those above it—physics explaining chemistry; chemistry, physiology; physiology, sociology; and so forth. His actual method was altogether unscientific; but through all his work runs the assumption that in contrast with his predecessors he is really being as exact and universally valid as mathematics. To Herbert Spencer—very appropriately, since his mental characteristics make him the English parallel to Comte—we owe the naturalisation of the word in English. His mind being of greater calibre than Comte's, the subject ac-

quired in his hands a far more progressive character. Herbert Spencer was less unfamiliar with natural history than with any other branch of practical scientific work; and it was natural he should turn to it for precedents in sociological research. His mind was invaded by the idea of classification, by memories of specimens and museums; and he initiated that accumulation of desiccated anthropological anecdotes that still figures importantly in current sociological work. On the lines he initiated sociological investigation, what there is of it, still tends to go.

From these two sources mainly the work of contemporary sociologists derives. But there persists about it a curious discursiveness that reflects upon the power and value of the initial impetus. Mr. V. V. Branford, your able secretary, recently attempted a useful work in a classification of the methods of what he calls "approach," a word that seems to me eminently judicious and expressive. A review of the first volume the Sociological Society has produced brings home the aptness of this image of exploratory operations, of experiments in "taking a line." The names of Dr. Beattie Crozier and Mr. Benjamin Kidd recall works that impress one as large-scale sketches of a proposed science rather than concrete beginnings and achievements. The search for an arrangement, a "method," continues as though they were not. The desperate resort to the analogical method of Comenius is confessed by Dr. Steinmetz, who talks of social morphology, physiology, pathology, and so forth. There is also a less imitative disposition in the Vicomte Combes de Lestrade and in the work of Professor Giddings. In other directions sociological work is apt to lose its general reference altogether, to lapse towards some department of activity not primarily sociological at all. Examples of this are the works of Mr. and Mrs. Sidney Webb, M. Ostrogorski and M. Gustave le Bon. From a contemplation of all this diversity Professor Durkheim emerges, demanding a "synthetic science," "certain synthetic conceptions"—and Professor Karl Pearson endorses the demand—to fuse all these various activities into something that will live and grow. What is

it that tangles this question so curiously that there is not only a failure to arrive at a conclusion, but a failure to join issue?

Well, there is a certain, not too clearly recognised, order in the sciences to which I wish to call your attention, and which forms the gist of my case against this scientific pretension. There is a gradation in the importance of the instance as one passes from mechanics and physics and chemistry, through the biological sciences to economics and sociology, a gradation whose correlatives and implications have not yet received adequate recognition, and which do profoundly affect the method of study and research in each science.

Let me begin by pointing out that, in the more modern conceptions of logic, it is recognised that there are no identically similar objective experiences; the disposition is to conceive all real objective being as individual and unique. This is not a singular eccentric idea of mine, it is one for which ample support is to be found in the writings of absolutely respectable contemporaries, who are quite untainted by association with fiction. It is now understood that conceivably only in the subjective world, and in theory and the imagination, do we deal with identically similar units, and with absolutely commensurable quantities. In the real world it is reasonable to suppose we deal at most with *practically* similar units and *practically* commensurable quantities. But there is a strong bias, a sort of labour-saving bias in the normal human mind to ignore this, and not only to speak but to think of a thousand bricks or a thousand sheep or a thousand sociologists as though they were all absolutely true to sample. If it is brought before a thinker for a moment that in any special case this is not so, he slips back to the old attitude as soon as his attention is withdrawn. This source of error has, for instance, caught nearly the whole race of chemists, with one or two distinguished exceptions, and *atoms* and *ions* and so forth of the same species are tacitly assumed to be similar one to another. Be it noted that, so far as the practical results of

chemistry and physics go, it scarcely matters which assumption we adopt. For purposes of enquiry and discussion the incorrect one is infinitely more convenient.

But this ceases to be true directly we emerge from the region of chemistry and physics. In the biological sciences of the eighteenth century, commonsense struggled hard to ignore individuality in shells and plants and animals. There was ~~an~~ attempt to eliminate the more conspicuous departures as abnormalities, as sports, nature's weak moments, and it was only with the establishment of Darwin's great generalisations that the hard and fast classificatory system broke down, and individuality came to its own. Yet there had always been a clearly felt difference between the conclusions of the biological sciences and those dealing with lifeless substance, in the relative vagueness, the insubordinate looseness and inaccuracy of the former. The naturalist accumulated facts and multiplied names, but he did not go triumphantly from generalisation to generalisation after the fashion of the chemist or physicist. It is easy to see, therefore, how it came about that the inorganic sciences were regarded as the true scientific bed-rock. It was scarcely suspected that the biological sciences might perhaps, after all, be *truer* than the experimental, in spite of the difference in practical value in favour of the latter. It was, and is by the great majority of people to this day, supposed to be the latter that are invincibly true; and the former are regarded as a more complex set of problems merely, with obliquities and refractions that presently will be explained away. Comte and Herbert Spencer certainly seem to me to have taken that much for granted. Herbert Spencer no doubt talked of the unknown and the unknowable, but not in this sense as an element of inexactness running through all things. He thought of the unknown as the indefinable beyond to an immediate world that might be quite clearly and exactly known.

Well, there is a growing body of people who are beginning to hold the converse view—that counting, classification, measurement, the whole fabric of mathematics, is

subjective and deceitful, and that the uniqueness of individuals is the objective truth. As the number of units taken diminishes, the amount of variety and inexactness of generalisation increases, because individuality tells more and more. Could you take men by the thousand billion, you could generalise about them as you do about atoms; could you take atoms singly it may be you would find them as individual as your aunts and cousins. That concisely is the minority belief, and it is the belief on which this present paper is based.

Now what is called the scientific method is the method of ignoring individualities; and, like many mathematical conventions, its great practical convenience is no proof whatever of its final truth. Let me admit the enormous value, the wonder of its results in mechanics, in all the physical sciences, in chemistry, even in physiology — but what is its value beyond that? Is the scientific method of value in biology? The great advances made by Darwin and his school in biology were not made, it must be remembered, by the scientific method, as it is generally conceived, at all. He conducted a research into the pre-documentary history. He collected information along the lines indicated by certain interrogations; and the bulk of his work was the digesting and critical analysis of that. For documents and monuments he had fossils and anatomical structures and germinating eggs too innocent to lie, and so far he was nearer simplicity. But, on the other hand, he had to correspond with breeders and travellers of various sorts, classes entirely analogous, from the point of view of evidence, to the writers of history and memoirs. I question profoundly whether the word "science," in current usage anyhow, ever means such patient disentanglement as Darwin pursued. It means the attainment of something positive and emphatic in the way of a conclusion, based on amply repeated experiments capable of infinite repetition, "proved," as they say, "up to the hilt."

It would be of course possible to dispute whether the word "science" should convey this quality of certitude;

but, to most people, it certainly does at the present time. So far as the movements of comets and electric trams go, there is no doubt practically cock-sure science; and indisputably Comte and Herbert Spencer believed that cock-sure could be extended to every conceivable finite thing. The fact that Herbert Spencer called a certain doctrine Individualism, reflects nothing on the non-individualising quality of his primary assumptions, and of his mental texture. He believed that individuality (heterogeneity) was and is an evolutionary product from an original homogeneity. It seems to me that the general usage is entirely for the limitation of the use of the word "science" to knowledge and the search after knowledge, of a high degree of precision. And not simply the general usage; "Science is measurement," Science is "organised commonsense," proud in fact of its essential error, scornful of any metaphysical analysis of its terms.

If we quite boldly face the fact that hard positive methods are less and less successful just in proportion as our "ologies" deal with larger and less numerous individuals; if we admit that we become less "scientific" as we ascend the scale of the sciences, and that we do and must change our method, then, it is humbly submitted, we shall be in a much better position to consider the question of "approaching" sociology. We shall realise that all this talk of the organisation of sociology, as though presently the sociologist would be going about the world with the authority of a sanitary engineer, is and will remain nonsense.

In one respect we shall still be in accordance with the Positivist map of the field of human knowledge; with us as with that, sociology stands at the extreme end of the scale from the molecular sciences. In these latter there is an infinitude of units; in sociology, as Comte perceived, there is only one unit. It is true that Herbert Spencer, in order to get classification somehow, did, as Professor Durkheim has pointed out, separate human society into societies, and made believe they competed one with another and died and reproduced just like animals, and that economists,

following List, have for the purposes of fiscal controversy discovered economic types; but this is a transparent device, and one is surprised to find thoughtful and reputable writers off their guard against such bad analogy. But indeed it is impossible to isolate complete communities of men, or to trace any but rude general resemblances between group and group. These alleged units have as much individuality as pieces of cloud; they come, they go, they fuse and separate. And we are forced to conclude that not only is the method of observation, experiment, and verification left far away down the scale, but that the method of classification under types, which has served so useful a purpose in the middle group of subjects, the subjects involving numerous but a finite number of units, has also to be abandoned here. We cannot put Humanity into a museum, or dry it for examination; our one single, still living specimen is all history, all anthropology, and the fluctuating world of men. There is no satisfactory means of dividing it and nothing else in the real world with which to compare it. We have only the remotest ideas of its "life-cycle" and a few relics of its origin and dreams of its destiny.

Sociology, it is evident, is, upon any hypothesis, no less than the attempt to bring that vast complex unique Being, its subject, into clear true relations with the individual intelligence. Now, since individual intelligences are individual, and each is a little differently placed in regard to the subject under consideration, since the personal angle of vision is much wider towards humanity than towards the circumambient horizon of matter, it should be manifest that no sociology of universal compulsion, of anything approaching the general validity of the physical sciences, is ever to be hoped for—at least upon the metaphysical assumptions of this paper. With that conceded, we may go on to consider the more hopeful ways in which that great Being may be presented in a comprehensible manner. Essentially this presentation must involve an element of self-expression, must partake quite as much of the nature of art as of science. One finds in the first conference of the Sociological Society,

Professor Stein, speaking, indeed, a very different philosophical dialect from mine, but coming to the same practical conclusion in the matter, and Mr. Osman Newland counting "evolving ideals for the future" as part of the sociologist's work. Mr. Alfred Fouillée also moves very interestingly in the reign of this same idea; he concedes an essential difference between sociology and all other sciences in the fact of a "certain kind of liberty belonging to society in the exercise of its higher functions." He says further: "If this view be correct, it will not do for us to follow in the steps of Comte and Spencer, and transfer, bodily and ready-made, the conceptions and the methods of the natural sciences into the science of society. For here the fact of *consciousness* entails a reaction of the whole assemblage of social phenomena upon themselves, such as the natural sciences have no example of." And he concludes: "Sociology ought, therefore, to guard carefully against the tendency to crystallise that which is essentially fluid and moving, the tendency to consider as given fact or dead data that which creates itself and gives itself into the world of phenomena continually by force of its own ideal conception." These opinions do, in their various keys, sound a similar *motif* to mine. If, indeed, the tendency of these remarks is justifiable, then unavoidably the subjective element, which is beauty, must coalesce with the objective, which is truth; and sociology must be neither art simply, nor science in the narrow meaning of the word at all, but knowledge rendered imaginatively, and with an element of personality; that is to say, in the highest sense of the term, literature.

If this contention is sound, if therefore we boldly set aside Comte and Spencer altogether, as pseudo-scientific interlopers rather than the authoritative parents of sociology, we shall have to substitute for the classifications of the social sciences an enquiry into the chief literary forms that subserve sociological purposes. Of these there are two, one invariably recognised as valuable, and one which, I think, under the matter-of-fact scientific obsession, is altogether underrated and neglected. The first, which is the social side of history,

makes up the bulk of valid sociological work at the present time. Of history there is the purely descriptive part, the detailed account of past or contemporary social conditions, or of the sequences of such conditions; and, in addition, there is the sort of historical literature that attempts to elucidate and impose general interpretations upon the complex of occurrences and institutions, to establish broad historical generalisations, to eliminate the mass of irrelevant incident, to present some great period of history, or all history, in the light of one dramatic sequence, or as one process. This Dr. Beattie Crozier, for example, attempts in his "History of Intellectual Development." Equally comprehensive is Buckle's "History of Civilisation." Lecky's "History of European Morals," during the onset of Christianity again, is essentially sociology. Numerous works—Atkinson's essay on the "Origin of Marriage," for example—are, as it were, fragments to the same purport. In the great design of Gibbon's "Decline and Fall of the Roman Empire," or Carlyle's "French Revolution," you have a greater insistence upon the dramatic and picturesque elements in history, but in other respects an altogether kindred endeavour to impose upon the vast confusions of the past a scheme of interpretation, valuable just in the value of its literary value, of the success with which the discrepant masses have been fused and cast into the shape the insight of the writer has determined. The writing of great history is entirely analogous to fine portraiture, in which fact is indeed material, but material entirely subordinate to vision. One main branch of the work of a Sociological Society therefore should surely be to accept and render acceptable, to provide understanding, criticism, and stimulus for such literary activities as restore the dead bones of the past to a living participation in our lives.

But it is in the second and at present neglected direction that I believe the predominant attack upon the problem implied by the word "sociology" must lie; the attack that must be finally driven home. There is no such thing in sociology as dispassionately considering what *is*,

without considering what is *intended to be*. In sociology, beyond any possibility of evasion, ideas are facts. The history of civilisation is really the history of the appearance and reappearance, the tentatives and hesitations and alterations, the manifestations and reflections in this mind and that, of a very complex, imperfect, elusive idea, the Social Idea. It is that idea struggling to exist and realise itself in a world of egotisms, animalisms, and brute matter. Now I submit it is not only a legitimate form of approach, but altogether the most promising and hopeful form of approach, to endeavour to disentangle and express one's personal version of that idea, and to measure realities from the standpoint of that idealisation. I think, in fact, that the creation of Utopias—and their exhaustive criticism—is the proper and distinctive method of sociology.

Suppose now the Sociological Society, or some considerable proportion of it, were to adopt this view, that sociology is the description of the Ideal Society and its relation to existing societies, would not this give the synthetic framework Professor Durkheim, for example, has said to be needed?

Almost all the sociological literature beyond the province of history that has stood the test of time and established itself in the esteem of men is frankly Utopian. Plato, when his mind turned to schemes of social reconstruction, thrust his habitual form of dialogue into a corner; both the "Republic" and the "Laws" are practically Utopias in monologue; and Aristotle found the criticism of the Utopian suggestions of his predecessors richly profitable. Directly the mind of the world emerged again at the Renaissance from intellectual barbarism in the brief breathing time before Sturm and the schoolmasters caught it and birched it into scholarship and a new period of sterility, it went on from Plato to the making of fresh Utopias. Not without profit did More discuss pauperism in this form and Bacon the organisation of research; and the yeast of the French Revolution was Utopias. Even Comte, all the while that he is professing science, fact, precision, is adding detail after detail to the intensely personal Utopia of a Western Republic

that constitutes his one meritorious gift to the world. Sociologists cannot help making Utopias; though they avoid the word, though they deny the idea with passion, their very silences shape a Utopia. Why should they not follow the precedent of Aristotle, and accept Utopias as material?

There used to be in my student days, and probably still flourishes, a most valuable summary of fact and theory in comparative anatomy, called Rolleston's "Forms of Animal Life." I figure to myself a similar book, a sort of dream book of huge dimensions, in reality perhaps dispersed in many volumes by many hands, upon the Ideal Society. This book, this picture of the perfect state, would be the backbone of sociology. It would have great sections devoted to such questions as the extent of the Ideal Society, its relation to racial differences, the relations of the sexes in it, its economic organisations, its organisation for thought and education, its "Bible" — as Dr. Beattie Crozier would say — its housing and social atmosphere, and so forth. Almost all the divaricating work at present roughly classed together as sociological could be brought into relation in the simplest manner, either as new suggestions, as new discussion or criticism, as newly ascertained facts bearing upon such discussions and sustaining or eliminating suggestions. The institutions of existing states would come into comparison with the institutions of the Ideal State, their failures and defects would be criticised most effectually in that relation, and the whole science of collective psychology, the psychology of human association, would be brought to bear upon the question of the practicability of this proposed ideal.

This method would give not only a boundary shape to all sociological activities, but a scheme of arrangement for text books and lectures, and points of direction and reference for the gradation and post graduate work of sociological students.

Only one group of enquiries commonly classed as sociological would have to be left out of direct relationship with this Ideal State; and that is enquiries concerning the rough expedients to meet the failure of imperfect institutions.

Social emergency work of all sorts comes under this head. What to do with the pariah dogs of Constantinople, what to do with the tramps who sleep in the London parks, how to organise a soup kitchen or a Bible coffee van, how to prevent ignorant people who have nothing else to do, getting drunk in beer houses, are no doubt serious questions for the practical administrator, questions of primary importance to the politician; but they have no more to do with sociology than the erection of a temporary hospital after the collision of two trains has to do with railway engineering.

So much for my second and most central and essential portion of sociological work. It should be evident that the former part, the historical part, which conceivably will be much the bulkier and more abundant of the two, will in effect amount to a history of the suggestions in circumstance and experience of that Idea of Society of which the second will consist, and of the instructive failures in attempting its incomplete realisation.

DISCUSSION

MR. SWINNY SAID:

As I am more strictly concerned with Comte, I will confine my remarks to what is said of him in the critical portion of Mr. Wells' paper. I was rather surprised to find that in criticising Comte, Mr. Wells continually repeated remarks which are to be found in Comte's works. Take some instances. Comte insists constantly that classification is a logical instrument for bringing our ideas into use, and that it must not be supposed that there is an exact correspondence between classification and the things classified. On the contrary, it is a means of bringing masses of subjects into such a state that they can be dealt with. When you talk of a hundred sheep, far from implying that those sheep are alike in all their qualities, you merely imply that they are alike in those qualities which you understand are included under the term sheep. To take another point, Mr. Wells implied that Comte considered all sciences equally precise. On the contrary, he distinctly says that there is a continual lessening of precision as you proceed from the more simple sciences, such as mathematics and astronomy, up to the more complex sciences of biology and sociology. To take a third point, Mr. Wells suggests that a part of the future work that he thinks sociologists might perform is the tracing of the sequence of social states. But that is in itself what Comte considered the main work of the dynamical part of sociology, which was to show the order in which states of society evolved; and therefore the tracing of the sequences of social states answers to what Comte called the discovery of the laws of progress. I will just mention one other point in which Mr. Wells, in attacking Comte, has followed him, and that is with regard to the question of experiment. He seems to be under the impression that sociologists generally, and Comte in particular, have held that experiment was a possible thing in sociology. Comte, far from thinking that, doubted whether it was of much value in biology, and says distinctly that it

cannot be used in sociology, and that therefore in sociology we must attempt to find some other means by which we can make up for the loss involved in not being able to make use of experiment. And while he thought that in some cases, and to a very slight extent, the study of the development of such communities as have remained isolated or partially isolated from the stream of progress, such as some of the far eastern civilisations that have only lately come in contact with the west—while such considerations had some rough approximation to experiment as used in physics, nevertheless there was always a considerable difficulty, because in those cases we could not, as the physicist does, choose the points on which the difference should be observed. So in all these ways Mr. Wells, in criticising Comte, has been putting forward not something opposed to Comte's teaching, but something in strict conformity with it. The main difference between Mr. Wells and Comte is that while the latter thought that the discovery of the laws of social progress were the main purpose of sociology, at all events in its dynamical aspects, and that the attempt to foresee the future thereby must be subordinate to a knowledge of those laws, and that therefore Utopias or sketches of the future would be of value in proportion to the state in which those laws were known, Mr. Wells considers that Utopias or imaginary sketches are the important things, and that the other is apparently of quite subordinate importance, and need not have any relation to it. And whereas Mr. Wells considers that the personal equation is so difficult to eliminate in sociology that it is not worth trying, Comte thought, on the contrary, that the work of sociology when it became more systematic would be useful in this way as well as in the other; that it would tend to eliminate these personal equations and enable us thus to gain a knowledge of the laws of social progress and to deduce from them some knowledge, not precise as in mathematics and astronomy, but useful knowledge of the course of progress in the future.

MR. KIDD SAID:

I do not know whether Mr. Wells really wishes to say there is not a science of sociology and never will be; and whether what is to replace sociology is scientific Utopias. With that view it is very hard for anyone like myself, who has spent twenty years in the study of human institutions to agree. I do agree with Mr. Wells that at the present time the science of sociology is in a very nebulous condition, but the reason of that is obvious. Biology itself was in an entirely nebulous condition not so very long ago. All sciences wait until they can begin to construct on a solid basis. In sociology it seems to me

we shall never advance until we introduce principles which we already see acting in biology. When anyone discusses the science of sociology he deals with the subject entirely and almost exclusively from the point of view of the individual. It does not matter in the least what we think about sociology, or along what lines we imagine the science is going to evolve, there is little doubt it will evolve along the lines of greatest efficiency. Now, in the past all of these efficient causes and principles have been more or less unconscious. We see the world shaping itself in great systems of civilisation, and it seems to me the first thing that Mr. Wells ought to do before he begins in this drastic way to attack the science of sociology, is to tell us what he really thinks the world has been doing in the past. What is the meaning of the systems the world has been throwing out? All these systems involve a set of problems which the human mind has been attempting to grapple with; and the solution of these problems unconsciously represents the lines on which society has evolved. To say that we are not going to have a science of sociology seems to me a statement empty of meaning. The reason why we know so little about it already is that to understand the very first principles of sociology it is almost necessary to know the contents of all history as well as philosophy and religion. We cannot discuss the science from the point of view of how many children a man in the next generation is going to have, or whether we can keep a stud book of families of civic worth. We shall never have a science of sociology along these lines; and the society which began here under such high auspices will, I hope, arrive at the study of society from some sort of fundamental principles, acknowledging that the science is of society and not of the individual.

MR. GIBBON SAID:

The first point I will mention is with regard to the individual instance. I take it that Mr. Wells holds that the points in which one person differs from another apply so much in social facts that it is impossible to have a science. But we make our own generalisations, even in regard to physical facts, and what the fact really is we have not the slightest notion. Likewise in social facts we ignore points of difference and make our own generalisations. When you come down to the general principles, which added together make that individual, you will find agreement is much easier. And what has happened? The progress which has been made in the physical sciences rather argues that we may hope for progress also in the social sciences. We have not hitherto had the facts before us, and without the facts how could there be a science? With regard to the work sociology has to do, if

the one that has always taken hold of the imagination of mankind; that is to say, whereas nobody wants to read classification, everybody wants to read about Utopias and dragons. But what does the attack on the classifiers come to? Only the neglect of certain factors; and they can easily say: we may have left out one or two factors you have got in, but your Utopias leave out an immense number of factors too, although your method is of an immensely more entertaining kind, because you are constantly appealing to prejudice and emotion. I only want to say in conclusion that the mere fact that any scientific method leaves out certain factors does not at all invalidate it as a scientific method. If you take the science of biology as it has flourished in the last half century, you will find that the whole of the Darwinian biology is quite remarkable, as being a science which leaves out the main factors of evolution and still has made remarkable contributions to our knowledge of life, solely because of the extraordinary way in which it reduces to the lowest possible limits, to the purely accidental and external forces operating in evolution. I do not think anybody will say that the work of Darwin or Weismann is unscientific. Consequently, in so far as the indictment brought by Mr. Wells is that the classificational methods leave out a number of factors, that is not against it. I, being a writer of fiction like Mr. Wells, maintain that the dramatic and Utopian method is much the higher; I begin with the synthesis ready made in my own imagination, which leaves men like Comte and Spencer far behind. But if I make the accusation that they leave out factors, they can accuse me of that too.

MR. DICKINSON SAID:

I should like to say that I agree with Mr. Wells, and wish to speak in his defence. The question of the possibility of sociology being a science seems to me a pertinent one. Can you say that human nature is always moving along the same lines at all times? That, as I understand it, is the doctrine of Comte; he made very serious attempts to prove his doctrine. Now it seems to me that that assumption is a very difficult one to prove with such facts as we have at our disposal. If you go back, as sociologists are now so fond of doing, to that intolerable jungle of savage beliefs, of which we have such numerous records, it seems to me the more you go into it the less you find of anything, except chaos. Given the most primitive man, you can find he will always be moving in some direction, and he will be checked by this or that stage of environment, so that you can always say people are on the same lines, only stopping at different places. I cannot see in this any extraordinary *prima facie* probability. Then when you come to what is called

history the case is no better, for what do you know? I understand that Mr. Wells would say when you are interpreting science or primitive institutions you bring with you your own ideas, and it does seem to me that the facts bear that out. The other part of Mr. Wells' contention seems to me to be this: you can say if you like, I am interested in science, and science has nothing to do with values, and therefore sociology means discovering what has happened, what will happen, what must happen, how facts are correlated. But after all, is not every sociologist interested in what will happen? If that comes into sociology then comes in what is obviously a subjective factor.

Now, I conceive it to be difficult to say that the ideas of individuals are altogether dissimilar, else it would be perfectly idle ever to attempt to convert anyone else to one's view; but it is equally difficult to say that at any moment you can expect absolute agreement. You have really a very curious situation which is expressed in literature, in art, in private conversation. You have a feeling that there is a right and a wrong in most things, and it is very annoying to you if others do not agree. But if the matter were threshed out it is probable that you would somehow agree. I think it possible that Mr. Wells' criticism of Utopias is an attempt to illustrate common elements in people's ideas. If you call that science I have no objection; it is not what is usually called science. From my point of view it is one of the most important studies at bottom, and the only thing that gives any particular interest.

MR. WILFRED TROTTER SAID :

The paper strikes me chiefly as embodying the substance of a great many previous attacks upon science. The critical part of the paper to my mind is not so much a comment upon sociology as an attack upon science in general. Mr. Wells finds it is perfectly inconceivable that a theory of classification should be possible. That is so; that question has ceased to interest the man of science; it has been recognised for thousands of years that classification is inconceivable. The question is, does it come true in practice? Mr. Wells said nothing about that side, but confined himself entirely to the theory of sociology. What we want to know is not, does Mr. Wells find sociology scientific, but do the forecasts made by sociology come true or not? Has sociology been able to effect anything which can be applied to the foretelling of conduct, or not? If that is the case, then the whole of Mr. Wells' question simply joins with the previous metaphysical attacks upon science as being of interest to people who are occupied with purely introspective methods, but of no interest to the man who has determined that his one standard of truth is not whether a thing feels true, but whether it comes true.

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